

STANDARDIZATION

Formerly Industrial Standardization

News Magazine of the American Standards Association, Incorporated



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Veneer Assn

Readers Write

Correct Type Tubing for Vent Stacks

Lustron Home
Lustron Corporation
Columbus, Ohio

Gentlemen: At the present time the Lustron Corporation is using copper tubing in the plumbing system to be installed in Lustron Homes. I would appreciate a statement from you as to whether or not type "M" copper tubing would be considered satisfactory for a vent stack under your specifications H23.1, 1946.

HUGH C. CAMERON, Chief
Building Codes Section
Service Department

• • The type "M" tubing mentioned is covered in American Standard Specifications for Copper Water Tube (ASTM B88-48; ASA H23.1-1948) revised last year. This type "M" tubing is intended for use with soldered fittings only. Two other types are referred to in the standard, respectively, type "K" for underground service and general plumbing purposes, and type "L" for general plumbing purposes. The decision as to whether or not this particular copper tubing is suitable for the purpose mentioned cannot be determined entirely on the basis of its compliance with the standard, however. The question whether or not plumbing codes permit the use of copper tubing for a vent stack also must be considered. The American Standard Plumbing Code, A40.7-1949, indicates that copper may be used but does not clearly indicate what type of copper is permitted.

On "Cooking With Gas"

Forest Hills, New York

Gentlemen: Can you tell me if there are any specifications as to how hot the oven top and the outside of the oven door of my new gas range should get?

MRS. M. HAHN

• • American Standard Approval Requirements for Domestic Gas Ranges, Z21.1-1948, gives surface and handle temperatures for insulated ranges. If your particular range bears the blue and white star symbol of the American Gas Association, it conforms to the requirements of this standard.

In testing ranges for conformance, the Testing Laboratories of the American Gas Association carry out very pre-

Company Members

More than 2100 companies hold membership either directly or by group arrangement through their respective trade associations

Readers Write

Continued

cise measurements of temperatures by means of surface thermocouples and indicating potentiometers, neither of which would usually be available to the consumer. Therefore, any measurements the consumer would make would tend to be considerably lower than the actual figures, and he would be safe in assuming that if his measurements exceeded those listed below there is something wrong.

The surface temperatures on the exterior of insulated ranges, and on the door handles, valve handles, and thermostat knobs should not exceed the following:

Maximum glazed door panel temperature (at a point at least one inch from the opening framing the glazed panel). . . . Room temperature plus 110 F.

Maximum exterior side, top, and back temperature. . . . Room temperature plus 110 F.

Maximum door handle, thermostat knob, and valve handle temperature. . . . Room temperature plus 40 F.

If the range happens to be a flush-to-wall type, the back and exterior sides are not required to comply with the above specifications, but must rather be of such construction as not to create maximum temperatures on walls adjacent to the back and sides of the range in excess of 190 F. and on the floor, 160 F. Here again, it is difficult to make these tests without the proper equipment. In general, if your range bears the AGA seal of approval and its installation has been checked by the public utility furnishing you with gas, you have nothing to fear regarding its installation.

Our Front Cover

Feeding soap into a milling machine. Coloring, perfume, and water are added, and the toilet soap emerges tinted and fragrant, ready for the "plodder," which compresses it into cylinders. The new American Standard for Milled Toilet Soap, K60.6-1949 (ASTM D 455-39), is one of a series of American Standards for soaps and detergents which are discussed in an article on page 130. Picture credit: 47-11, Bauer, Cushing.

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Vol. 20 No. 5 Standardization

May 1949

Published Monthly by AMERICAN STANDARDS ASSOCIATION
INCORPORATED

70 E. 45th St., N. Y. 17

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Reg. U. S. Pat. Off.

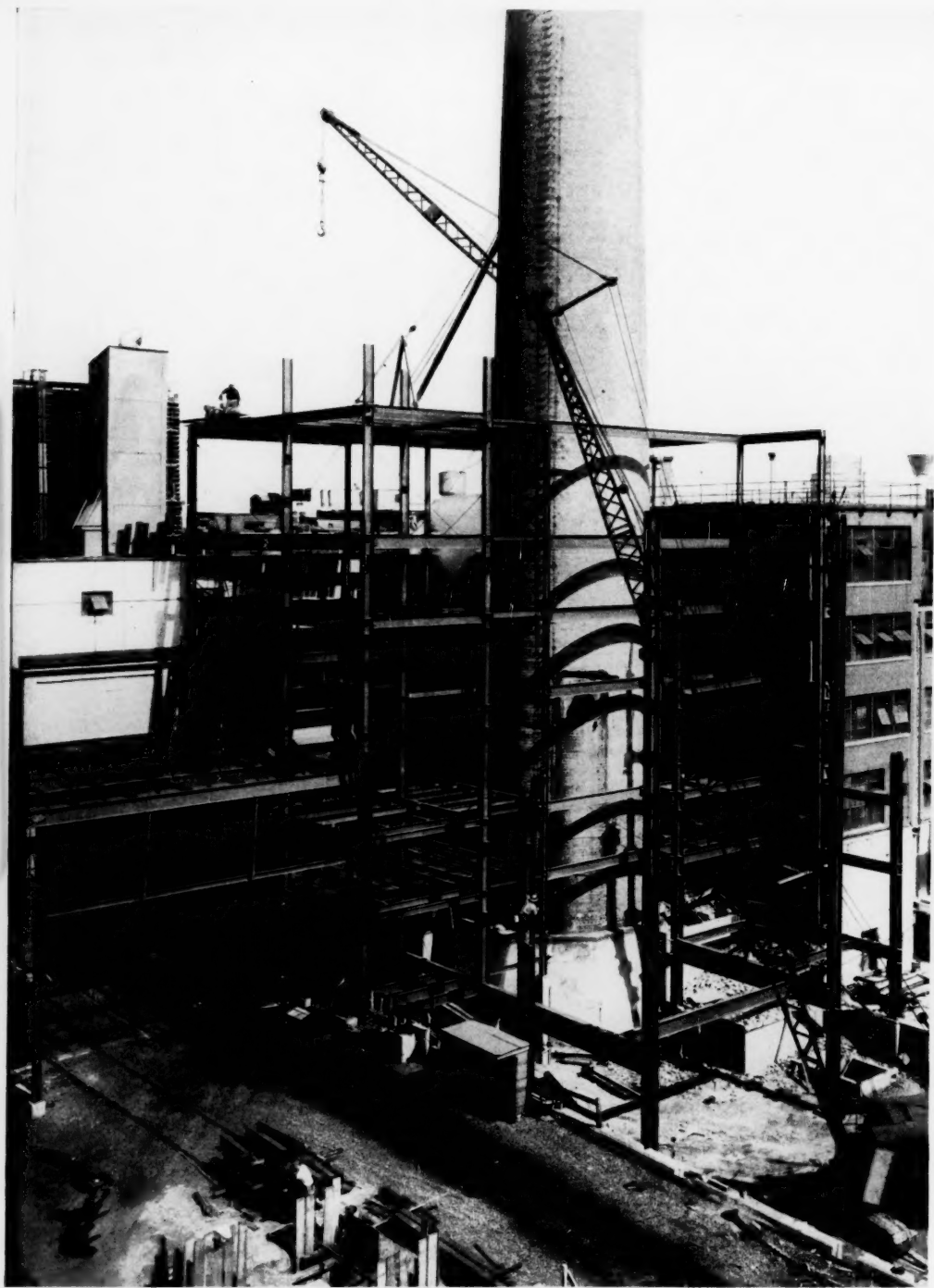
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Standardization is dynamic, not static. It means
not to stand still, but to move forward together.

Single copy, 35¢. \$4.00 per year (foreign \$5.00). Schools and libraries \$3.00 (foreign \$4.00). Re-entered as second class matter January 11, 1949, at the post office at New York, N. Y., under the Act of March 3, 1879. Indexed in the Engineering Index and the Industrial Arts Index.



Eastman Kodak Company

Power house extension at Kodak Park Works is being built of standard materials, to be installed according to standard practices. This frees the designers of the structure and the equipment to devote their time to special problems.

Company-Wide Program Cuts Costs for Eastman Kodak

Purchasing and inventory costs are reduced by use of standard specifications for materials to be used in company's three Rochester plants; uniformly high quality is maintained

By P. J. Callan

THE growth of material standards at the Eastman Kodak Company has been somewhat unusual, due in a large degree to the geographical proximity but varied nature of the several plants which have cooperated in their development. Historically the program was first mapped out to serve the company's three major plants in Rochester. The Hawk-Eye Works manufactures optical lenses and special equipment; the Camera Works makes cameras, projectors, and other precision photographic apparatus; and the Kodak Park Works produces photographic film, paper, chemicals, and related products and thus is essentially a chemical plant.

While these plants are all under the direction of the company's general management in Rochester, each plant has its own manager, with line and staff organizations, and each has its separate engineering, purchasing, and stores facilities. Nevertheless, it was felt that standards should be developed on as broad a basis as practicable, and standards activities were organized to deal with problems on a company-wide basis as well as on an individual plant basis, as conditions warranted.

Material Standards are defined as applying to the identification, purchase, inspection, testing, warehousing, and handling of materials of construction, production, and maintenance; and to the utilization of these materials in engineering design, processing, and fabrication. Thus they include the activities comprised within the concept of engineering standards. They do not include standardization of finished photographic products.

The organization to carry on this work consists of an Engineering Standards group in each plant and a

Material Standards group attached to the general company management. Each of the former develops such standards as are required by the specific needs of its own plant. These are known as "Plant" standards, and the distribution is generally confined to the particular plant.

As might be expected, there is little relationship, for example, between such standards developed by the Camera Works and the plant which produces film and chemicals. There are, nevertheless, a great many elements making up these standards which are common to two or more plants, and a surprisingly large number of operations and materials which are similar, although they may be classified as production problems in the one place, and as maintenance or construction in the other.

Material Standards Department Coordinates Data

There is also a great deal of know-how developed in one plant along those lines in which it has a particular interest. These data can be put to work in another plant which has similar problems, but which perhaps has been devoting its energies to other projects, or to other aspects of the same problem. For example, one division has recently been concerned with setting a standard on the sur-

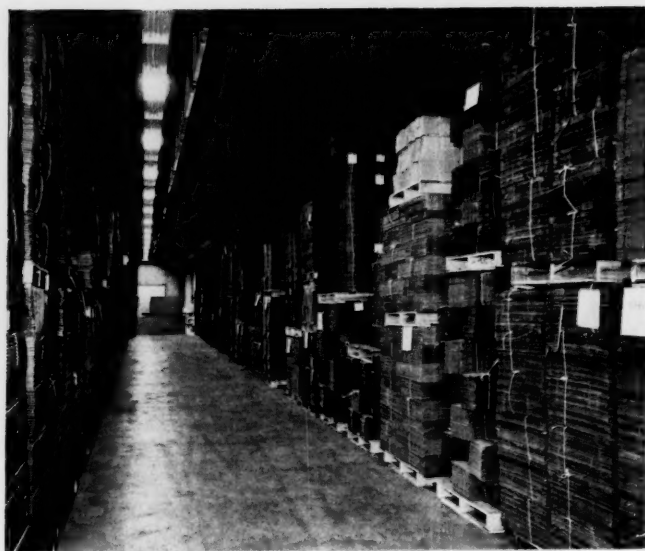
face quality (American Standard Surface Roughness, Waviness and Lay B46.1-1947) to be specified for various parts, such as bearings, shafts, gear teeth, etc., while another division has been more specifically engaged in determining just what tools and what sequence of operations are required to produce surfaces in specified microinches according to American Standard B46.1-1947. Such data can be pooled and welded into a single standard to advantage. This is one of the functions of the Material Standards Department.

To date, however, most of the activities of this department have been devoted to the problems of identification, cataloging, specification, and inspection of incoming materials. These standards are developed and printed by this department and distributed to all plants and parties concerned. They are developed in a variety of ways, depending upon the type of material and whether its use is widespread or is confined to one plant or division.

All formal purchase specifications are written by the Material Standards Department, even though the particular material might be used by only one plant. This takes advantage of the specialized knowledge which has been built up by dealing with all kinds of materials over a period of time. It also takes advantage of the familiarity which has been acquired with the standards published by the various technical societies, trade associations, and other standardizing bodies of national scope. It is also a safeguard against duplication or near-duplication should the material be used by more than one plant.

The basic purpose of a purchase specification is to define a material

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Eastman Kodak Company

Boxboard in this warehouse was bought, inspected, and identified according to standard purchase specifications and is stored and handled on standard pallets.

accurately in terms which will fix the minimum requirements of quality and performance, preferably independent of the source of supply, for the common understanding of all those who specify or handle the material. Requests to write such a specification may therefore come from the Purchasing, Stores, or Receiving Inspection departments, or from any production department dealing with the material. An investigation by a Materials Analyst often shows that the material has heretofore not been clearly defined, or that honest misunderstandings have been experienced with the vendor—perhaps that some small, though important variable has been overlooked. He will contact all interested parties and find out the specific requirements of each. He will frequently find it necessary to arrange for tests to determine acceptable quality limits or dimensional tolerances. He will likewise determine the vendors' ability to meet these limits, as well as to investigate any nationally recognized standards which might be applicable. This collection of data will then be integrated and a tentative specification written to meet as closely as possible the requirements of all interested parties. The analyst then has a "selling job" to convert those whose first stated requirements cannot be fully met. This is usually successful when the reasons are presented, backed up by the accumu-

lated data. If this agreement cannot be obtained, a meeting is called of all interested parties at which time differences are usually ironed out, or at least a basis established for a settlement at a later date.

Such a thorough search for facts almost always results in improvement of the material or item purchased, lower purchase cost, or savings in testing and handling. For example, a recent revision in a paper specification, where the original request was for a change in the bursting strength requirement, not only resulted in the requested revision, but in closer tolerances and reduced sampling expense by the adoption of a statistical sampling plan, as well as in an improved method of handling the paper in the Receiving and Warehousing Departments. To cite another example, it was noted, in revising a series of chemical specifications, that laboratory inspection tests were being made for different types of impurities and by different methods for the same impurities. A study revealed that from one to five tests each could be eliminated from a series of 12 related chemicals. Furthermore, tests for the same impurities were being run by different methods and these were changed to a standard basis, thereby simplifying the laboratory work.

When it is found that the specification is for a material which is used in several plants, every effort is made

to get agreement from all the plants concerned. Even though the purchasing functions in these plants are independent, it has been found that there are a great many advantages to be gained by such a practice. These can be summarized as follows:

(a) Pooling of technical knowledge on a broader scale, which leads to a better specification, and to wider dissemination of information on the proper use of the material.

(b) Interplant transfer of standardized material, especially when there is a requirement or shortage in one plant, and a surplus in another.

(c) Fabrication in one plant of parts designed in another, without confusion of material nomenclature or purchase and stocking of near-duplicate materials.

This practice paid off handsomely recently when it was found expedient to move one whole manufacturing operation from one plant to another. The demands made on the Purchasing, Stores, and Production departments to handle the various materials required by this unit were absorbed by the new plant without confusion or incident. Such a situation is easily taken for granted and the savings thus effected would be overlooked were it not for comparison with certain high expenses which were encountered in other fields in which standardization had not yet been undertaken.

Incoming Material Sampled in Laboratories

A corollary of writing each specification is the "Inspection Procedure." This is a device not ordinarily required by the smaller plants having more or less regular routing of materials through the various processes of manufacture, but one which is found quite necessary at the Kodak Park Works, the company's largest, with its many departments devoted to a large number of products and to a variety of processes.

This Inspection Procedure is a standard which fixes the method of sampling the incoming material, routes the samples to the respective laboratories, and directs the distribution of the analyses to the interested parties. It specifies the procedure for taking the samples from the material received, as well as the precautions to be observed in preventing their contamination. It also designates the several specialized laboratories to which the samples should be delivered, specifies the tests which are to be run, and names the parties to whom the analyses should be reported. Such an instrument can best be prepared at the same time as the specification, since competent sam-

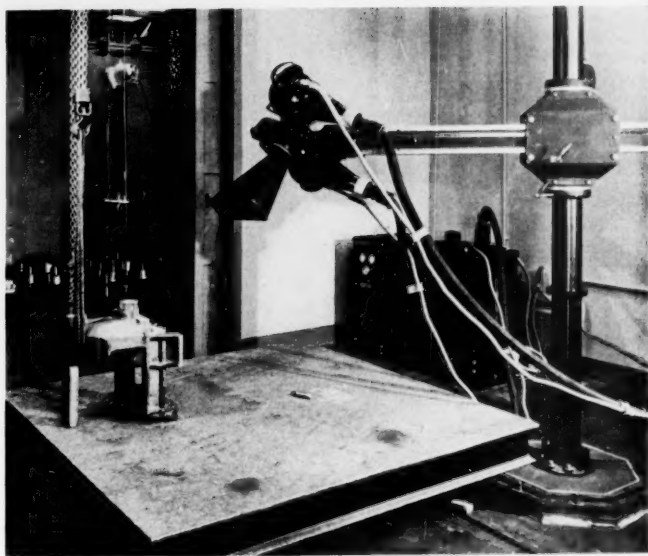
pling and testing, and adequate reporting, are as essential as the basic requirements incorporated into the specification itself. It has been found that such a written procedure, approved by all parties interested in the specification itself, has resulted in obtaining more representative samples, in eliminating duplicate testing, and in insuring prompt reporting to all parties concerned.

Another function closely allied to purchase specifications is the standard "test method." Wherever possible, purchase specifications include reference to specified ASTM test methods, or to other recognized standards. Nevertheless there are certain tests which have of necessity been developed to cover Kodak's peculiar requirements, especially those pertaining to the fogging of sensitized products. Not only are these tests required on raw materials entering into the product itself, but they are also mandatory on a long list of maintenance materials, such as lubricants, paints, floor waxes, etc.

The development of standard test methods has resulted in the elimination of duplicate testing by various departments, and to a determination of the basic causes of fogging action by the various contaminants. This has led to a better understanding on the part of vendors who were previously confused by the several and conflicting methods in use, and has enabled them to supply improved materials.

Engineering Standards have been mentioned earlier, especially in reference to the Engineering Standards groups which have been set up in each of the plants. The development here has been along two basic lines. The one can be classed as Construction and Maintenance Engineering standards, and is typical of the efforts of the Kodak Park group. Since this plant is concerned principally with the manufacture of sensitized goods and chemicals, the basic problem is one to standardize on the elements of building construction—heating and ventilating equipment, piping, plumbing, insulation, electrical work, materials handling equipment, welding, etc. At present, some effort is being exerted to standardize machine design tolerances, surface quality, etc. With more and more precision being required by the production departments, such standards are becoming essential in order to meet these requirements at a reasonable cost.

The other class of Engineering Standards concerns those materials and operations met in mass production of mechanical parts. Typical of



Eastman Kodak Company

X-ray tests for soundness of casting before expensive machining operation provide a check on the requirements and limitations of materials specifications.

these are the Engineering Standards of the Camera Works in the field of product design, tool design, and manufacturing processes. These comprise data on the subjects usually covered by a company having an engineering standards program—drafting practices, screw threads, bearings, fasteners, standard parts, finishes, selection of materials, punches and dies, drilling, tapping, grinding, tolerances, etc. These are coordinated through the Material Standards Department on the phases which are of common concern. Such coordination to facilitate similar plant standards also played a significant part in the previously mentioned example where a production unit was moved and assimilated into another plant. It also promotes uniformity of appearance and simplicity of maintenance on products comprised of individual parts or units which have been manufactured in different plants.

No Special Parts for Machine Screws

One of the early efforts at Engineering Standards was in the direction of substituting commercial sizes of machine screws for the specials then in use. The latter were handled the same as other parts and were each recorded on a separate drawing carrying a "part number." When standard screws were established, a standard sheet was drawn up in the

usual manner—all size screws of one type being put on a single page in the standards book—and each screw given a "Standard Number" instead of a "Part Number." Recently, the last 600 of these screw drawings were retired and replaced by the standards. No effort was made to evaluate this saving but some estimate can be made from the following facts: The annual saving in blueprints alone was \$7500; 60 special screws costing upwards of 15 cents each as made on screw machines were replaced by commercial screws costing about $\frac{1}{3}$ cent each; and a sizable sum was also saved in the labor previously required to revise the drawings every time a screw was used on a new product.

A major effort at Kodak has been along the lines of codifying and simplifying the huge number of items required for everyday maintenance and construction purposes. These include such things as piping, plumbing, insulation, lighting, wiring, etc for initial construction and maintenance; expense equipment such as laboratory glassware, electronic elements, lamp bulbs, welding rod, small machine tools, etc; and maintenance materials such as paint, lubricants, janitors' supplies, etc. The outlay for such material runs into millions of dollars annually, yet there are so many items on the market, and so few standards of comparison available, that the buyer is confronted

with an almost impossible task to make the best selection from the innumerable brands offered. His job, as well as that of the storekeeper, is further, and more seriously, complicated by the demands from various quarters to purchase and stock specified brands. For example, a recent survey showed the Stores of one plant stocking seven different brands of liquid floor wax, all supported by authorizations from seven different department heads. We may honestly ask a few questions here. Why seven kinds of floor wax? Are the requirements in these departments different from each other? Are the requests for specific brands backed up by tests? Are all these brands of the same general "type," or are they different in composition and performance?

Ideal Solution— "Fewest Types"

Yet we know by experience that all requirements can probably be met by two or three, perhaps even one, "type" of wax. We can also anticipate that some of the seven brands are inferior to, and could be replaced to advantage by, some of the others. The ideal solution, therefore, is to find the fewest "types" which will do the job when all factors, including price and serviceability, are considered. Under each basic "type" would be listed all brands which are known to meet the requirements. Thus the Purchasing Department could have more latitude in obtaining acceptable materials.

Another typical example might be cited: Picture the dilemma of a young engineer in a large organization called upon to select a 2½ in. valve for a 120 psi steam line. Should he select a screw end or a flanged end valve? an iron body brass trimmed or an all-brass valve? the bare minimum 125 lb standard or a more rugged 150 lb or even 200 lb type? a rising or nonrising stem? a double disc or a wedge gate? a split wedge or solid wedge? and finally, what brand or make of the many available? We know that any of the above selections would "work"—for a time at least. Yet we also know that it would be much better if an intelligent selection could be made by comparing the prices of these various combinations with the service records of valves of similar type. But this would take an unwarranted amount of time. However, if this is a recurring problem, it is emphatically advantageous to obtain this information from those having the technical knowledge and practical

operating experience, and to develop it into a written standard. With such a tool the young engineer is enabled to select the most economical and approved type in a matter of seconds.

Representative Committees Established

This was one of the first problems tackled by the Eastman Kodak Company after it had established a formal program of Material Standards. Committees were established in such fields as metals, fasteners, pipe fittings and valves, gaskets and packing, electrical wiring and fixtures, paints, lubricants, tools, laboratory supplies, and other fields. The ideal committee contains members from the Material Standards, Purchasing, Stores, Engineering, Laboratory, and several production departments; being carefully selected as well from among the several plants to get plant-wide as well as department-wide representation. The actual committees may vary from the ideal as determined by practical considerations, depending upon the nature of the material and upon the relative importance of the interests of those concerned.

The purchase orders, stores orders, and stores inventories are carefully scrutinized. The pattern is usually found to be the same—a large number of purchase orders for small amounts of almost identical or closely related items, duplication of stores items through several brands of the same basic product, some duplication of stocked items because of confusing nomenclature, and a number of unnecessary intermediate sizes.

These lists are studied by the committee, and work starts by eliminating unnecessary sizes, duplication of items, and inferior brands. When agreement can not be reached on grades which are to be retained, or on brands which are to be considered acceptable, a test is devised to supply the information. This might be a chemical analysis to determine the inherent value of the material, or a long-time durability test. Sometimes one brand is found to be so superior that it is listed as the standard, even though perhaps it is higher in price. Whenever possible, as many brands as feasible are tested and all equivalents are listed. The objective, of course, is to have the fewest types of material purchased and stocked, but to have as many brands as possible qualified under each type. Sometimes all brands are eliminated by writing a specification.

All this information is arranged

and printed in the "Standards Catalog" which is freely distributed throughout the company. This catalog carefully describes each and every item and identifies it with a 7-digit code number, or "EK Standard Number" as it is called. It also shows in a "Stock" column the location, by letter code, of the plants which carry the item as authorized stock. This code number, together with the short underlined portion of the description, is used on requisitions and positively identifies the item through all processes of requisitioning, purchasing, and stocking.

Advantages are Obvious

This program, like other standards activities, can not be evaluated on a wholly tangible basis, but its advantages in a large organization are obvious—the saving in drafting and engineering time, the saving in purchasing by buying greater quantities of fewer items, the reduction in stores inventories, the reduction in obsolete items, and the improvement in the quality of the items themselves. Nevertheless we get an inkling of the size and nature of the aggregate savings through isolated cases where the savings have been evaluated for specific reasons. To quote a few: One plant adopted the Catalog standards on electrical items and applied EK Standard Numbers to their Stores stock cards. When the job was finished, the inventory had been cut from \$60,000 to \$45,000. One plant developed and adopted Stationery Supply Standards and found a \$5,000 annual saving in purchasing these items. Janitors' brooms and brushes were standardized at a saving of 20 percent in the cost of the brushes without sacrifice in the quality. Electronic tubes and elements were standardized and stocked, saving about 25 percent in purchase costs when compared with the former method of placing multitudinous orders for these small items.

More than half of these standards are applicable to several plants in the company and have therefore been developed on a company-wide scale. Participation in such development, and the use of such standards, is on a cooperative and voluntary basis. The program is a valuable tool in maintaining high quality of materials purchased for all purposes, and assists in the proper application of these materials. The cost of the program is justified by the intangible savings which permeate the entire fiber of the organization, but it can be justified on a tangible basis by the savings made in purchasing alone.

Minimum Plumbing Requirements Set Forth in New Code

Available for adoption by state and local authorities, new plumbing code establishes minimum requirements for design, installation, inspection, performance, and maintenance of plumbing systems

THE need for a standard plumbing code providing minimum requirements that would be acceptable for adoption on a nationwide basis has been recognized for many years. Local communities now have a wide variety of requirements for the type of piping, vents, and fixtures, and the methods of installation needed to protect their citizens against pollution of drinking water and to carry off wastes safely. Not only have these differing requirements caused unnecessary hardship and expense for manufacturers of plumbing equipment but also in some cases they have been responsible for bad health conditions. In a few cases it has even been possible to trace virulent epidemics to unsatisfactory plumbing installations approved under local plumbing requirements. Several years ago one such epidemic, caused by an installation in a Chicago hotel which permitted backflow of sewage into pipes carrying drinking water, received considerable notice in the press.

Out-of-date requirements, on the other hand, have been known to cause hardship for the householder who must pay extra costs for unnecessarily clumsy and heavy equipment, and is unable to take advantage of new and less costly but equally safe methods and materials.

National Acceptance Is Desired

To meet the need for minimum plumbing requirements, many codes have been drafted and some have been published. Of these, a few have had considerable influence on local codes, but for various reasons none has been generally accepted on a national basis.

Now, after eight years work, a committee of 30 national organizations and government bodies, sponsored by the American Public Health

By Albert H. Morgan

Association and the American Society of Mechanical Engineers, and organized in accordance with the procedures of the American Standards Association, has completed a plumbing code that has been approved by the American Standards Association. It is hoped that this American Standard, which is available to State, County, and Municipal administrative authorities for adoption in whole or in part, will be generally accepted and adopted.

The purpose of the code is to make available to these authorities a coordinated set of rules for the installation and maintenance of plumbing. It establishes those minimum requirements—for the design, installation, inspection, and performance of plumbing systems—necessary to protect drinking water from pollution and dispose of the waterborne wastes in a manner that will provide protection against hazards to health and will result in satisfactory performance in operation.

Mr Morgan represented The American Society of Mechanical Engineers, the National Association of Building Owners and Managers, and the Management Division, Real Estate Board of New York, and was chairman of the subgroup that drafted the new American Standard Plumbing Code, A40.7-1949. The subgroup worked under the Sectional Committee on Minimum Requirements for Plumbing and Standardization of Plumbing Equipment, A40. This sectional committee is sponsored by the American Public Health Association and the American Society of Mechanical Engineers, under the procedure of the American Standards Association.

For this purpose, the code contains general regulations outlining the principles to be followed in setting up a plumbing system. It also contains sections giving specific requirements for quality and weight of materials; joints and connections; traps, interceptors, and clean-outs; hangers and supports; plumbing fixtures; water supply and distribution; soil and waste pipe; storm drains; vents and venting; indirect wastes and waste piping; and inspection and tests. An appendix contains suggested regulations for the licensing of plumbers and plumbing work.

Includes Definitions

It was also found necessary during the development of the new code to prepare a section devoted to definitions, as many terms have been loosely used and have had different meanings in various local codes.

The principal objective of the drafting subcommittee was to prepare a code that outlined the minimum requirements essential for safety and health. This principle could not be followed entirely, however, since in some cases it was impossible within the time available to conduct the extensive research necessary to establish beyond question the actual minimum requirement. In some cases, therefore, established practice has been included in the code, even though it may require more than the actual minimum needed for safety.

Early in its work the subcommittee recognized that, while much research has been performed, a great deal more is required. Some of this has now been done and the results have been incorporated in the code. Due to the time needed for making tests and interpreting the data, however, the research program will have to be carried on for a number of years. For this reason a special committee

has been appointed to foster research by the industry and in government and university laboratories. As further data becomes available, any necessary or desirable revisions can be made in the code.

In selecting the materials recommended for use in plumbing systems, the committee included those which experience has proved to be satisfactory, and also those for which there is sufficient technical data to show that they would be satisfactory. There are many prejudices that cannot be substantiated for or against certain materials or methods. Therefore, some materials and methods which have been included may not meet with unanimous approval. The committee believes that in each case its determination has been based upon the most reliable data available.

This is an age of rapid development in all technological fields, and the committee realizes that many materials which today are in the experimental stage may be available and may be entirely suitable for use in the near future. Many of these materials were considered but not in-

Copies of the American Standard Plumbing Code, A40.7-1949, published by the American Society of Mechanical Engineers, can be obtained from the ASME or from the American Standards Association at \$2.50 each.

cluded, solely because there is insufficient data at this time to warrant their inclusion. In view of this condition, the code contains provisions to permit the adoption of new materials and methods as soon as their use has been demonstrated to be satisfactory.

The technical bulletin recently issued by the Housing and Home Finance Agency, entitled "A Uniform Plumbing Code for Housing," is based in a large part on the work performed by the committee which drafted the American Standard Plumbing Code (although the American Standard is not limited to housing). The two codes are identical

in many sections, except for minor variations in wording. Although in one section there are differences in the method of approach for the determination of pipe sizes, the final result should be the same, using either code.

As previously mentioned, various organizations have prepared codes which have had acceptance in some localities. The American Public Health Association and the American Society of Mechanical Engineers, as sponsors for the American Standard Plumbing Code, have therefore joined with the Housing and Home Finance Agency in inviting representatives of these organizations to join in a round table discussion of the codes with a view to reconciling differences and promoting general acceptance of the American Standard Plumbing Code, A40.7-1949. Organizations invited include the Conference of State Sanitary Engineers, the American Society of Sanitary Engineering, the U. S. Department of Commerce, the Western Plumbing Officials Association, and the Building Officials Conference of America.

Photographers Back National Standards

Photographic Society of America joins ASA as Associate Member

THE Photographic Society of America was founded in 1934 as an outgrowth of the Associated Camera Clubs of America, and has become one of the world's largest organizations of photographers. Its 3,000-plus membership is comprised of amateurs and professionals, clubs and councils. Its interests range the gamut of all photography, but with emphasis indicated by the existence of pictorial, technical, color, nature, motion picture, and photo-journalistic divisions. The society publishes a monthly magazine, confers special awards and honors for achievement in the form of associateships, fellowships, honorary memberships, and honorary fellowships, and maintains headquarters at Philadelphia, Pa.

Any member of the society may affiliate with any or all PSA divisions. PSA Technical Division now has local sections which meet regularly in New York, Boston, Rochester, Binghamton, Cleveland, and Southern California. Operations of the society provide for an annual national meeting and for regional meetings as necessary.

Standards work of the society is



John G. Mulder
President
Photographic Society of America

undertaken largely through the Standards Committee of the PSA Technical Division and subcommittees, created as needed. PSA has been represented for some time in the American Standards Association through Committee Z38, which is concerned with dimensional standards and recommended practices, as well as with methods for testing, rating, and classifying the performance characteristics of materials and equipment used in still photography. PSA is represented also on Motion Picture Committee Z22, with concern espe-

cially for amateur motion picture equipment, dimensions, and practices.

PSA, however, develops on its own accord voluntary standards and recommended practices in other fields. PSA Pictorial Division, for instance, now is cooperating with the PSA Technical Division Standards Committee in establishing recommended or standardized illumination for judging prints. PSA Color Division similarly cooperates with this committee in an effort to establish properly standardized illumination of screens utilized in judging color slides. These and other PSA divisions have, from time to time, prepared recommended practices for various group photographic activities, to provide reliable voluntary standards which can be generally followed.

Present officers of the Society are: President, John G. Mulder, of Rochester; First Vice-President, Victor H. Scales, of New York; Second Vice-President, H. J. Johnson, of Chicago; Secretary, Mrs. A. P. Dewey, of Chicago; and Treasurer, Charles Hiller, of Philadelphia.

Symbol	Concept	Dimensions	Also Appears in Z10 Publication	Remarks
a (lc) A (cap)	Velocity of sound Area, cross-sectional	LT^{-1} L^2	Z10.2, Z10.4, Z10.12	Use c (lc) for alternate Use S (cap) for surface or projected area
A (cap)	Aspect ratio	Dimensionless	_____	See R (cap, written together) for alternate
R (cap, written together)	Aspect ratio, alternate for	Dimensionless	_____	_____
b (lc) b (lc)	Span Blade width (propellers)	L L	_____	Used in Z10.3 for Breadth
c (lc) c (lc)	Chord, of an airfoil Velocity of sound, alternate for	L LT^{-1}	Z10.12	_____
c (lc)	Coefficient, alternate for; section coefficient	Dimensionless	_____	_____
c_p (lc)	Specific heat, at constant pressure	$L^2T^{-2}\theta^{-1}$	Z10.4, Z10.12	_____
c_v (lc)	Specific heat, at constant volume	$L^2T^{-2}\theta^{-1}$	Z10.4, Z10.12	_____
C (cap)	Coefficient	Dimensionless	Z10.2	See K (cap) for factor which may have dimensions
C (cap)	Concentration	Dimensionless	Z10.4	_____

This section of a representative page from the proposed standard illustrates how symbols are listed.

What Do You Think of the Proposed Letter Symbols for Aeronautics?

THE first proposal since 1930 for standard letter symbols to be used in literature in the fields of the aeronautical sciences is now available from the American Standards Association. The proposed symbols are being circulated for comment before final approval.

Because rapid technical developments made the American Standard Letter Symbols for Aeronautics of 1930 obsolete soon after they were published, there has been a virtual absence of standard symbols for aeronautics for almost 20 years. In the meantime, large-scale government-sponsored war and post-war aeronautical research relating to aircraft and to guided missiles, coupled with a lack of up-to-date standards, forced the widespread and confusing use of many individually devised systems of letter symbols of limited scope.

The problem of finding generally acceptable symbols—acceptable even among its own membership—was tackled by Subcommittee No. 7 of the ASA Sectional Committee on Letter Symbols and Abbreviations for Science and Engineering, Z10. This sectional committee works under the sponsorship of the American Asso-

By Roy C. Hopgood

ciation for the Advancement of Science, the American Institute of Electrical Engineers, the American Society of Civil Engineers, the American Society of Mechanical Engineers, and the Society for Engineering Education.

Subcommittee No. 7 was reconstituted in June 1947 in an atmosphere of relative urgency in view of the expanded scale of aeronautical research. In order quickly to reach agreement on a generally acceptable standard, the subcommittee collected, duplicated, and distributed among its membership some 35 papers and lists relating to aeronautical letter symbols. Thus, before the first formal meeting, all subcommittee members were aware of the extent of the confusion then existing.

Mr Hopgood is secretary of Subcommittee 7 of the ASA Sectional Committee on Letter Symbols and Abbreviations for Science and Engineering, Z10.

The subcommittee decided that its first concern should be only with letter symbols for primary concepts. Such symbols have been called principal letter symbols. The present pamphlet deals primarily with such symbols. Subscripts and superscripts were viewed as relating to secondary concepts, and in order to simplify the task of obtaining agreement, it was decided to defer substantially all matters relating to subscripts and superscripts.

In the proposed standard there are two listings of the same symbols and quantities, in order to facilitate use of the standard. The first listing is alphabetical by symbols, and the second appears in an appendix and is alphabetical by concept. As will be seen from the accompanying illustration, the first listing comprises five columns. However, only the first two columns (the Symbols column and the Concept column) of this first listing constitute the proposed standard; all other columns and listings are merely to facilitate use of the standard. In the third column of the first listing, illustrative dimensions are given, but these dimensions are not a part of the proposed standard.

In the fourth column, the extent of agreement with current American Standards is indicated. This agreement is substantial. In the fifth column are certain remarks, including some definitions, but these form no part of the proposed standard.

Work on the proposed standard is still going on. At a recent meeting the subcommittee agreed upon certain corrections and improvements to the symbols for primary concepts included in the published proposal. In addition, it gave attention to symbols for secondary concepts (subscripts and superscripts) for application to the principal symbols when the final edition of the standard is completed for submittal to the sectional committee. Another meeting of the subcommittee is planned for the fall to complete the work before it is considered by the sectional committee.

The Proposed American Standard Letter Symbols for Aeronautics and Aerodynamics has been published for trial and study before final consideration in the early fall. Suggestions and comments will be welcomed for the guidance of the sectional committee and of Subcommittee No. 7. They should be sent to the Secretary of the Sectional Committee on Letter Symbols and Abbreviations for Science and Engineering, Z10, American Standards Association, Incorporated, 70 East 45th Street, New York 17.

Logbook of the Proposed Standard

Subcommittee No. 7 of Sectional Committee Z10 was reconstituted for consideration of new standard letter symbols for aeronautics and aerodynamics in June 1947. Since then, the subcommittee held three meetings

preparatory to submitting material to the sectional committee. The present proposed standard was approved by the Sectional Committee at its October 1948 meeting for circulation for a trial period.

Members of the subcommittee:—

Prof Thomas F. Ball, Applied Physics Laboratory, The Johns Hopkins University, Chairman
R. C. Hopgood, Room 1811, 420 Lexington Avenue, Secretary
Dr J. V. Charyk, Department of Aeronautical Engineering, Princeton University
Prof W. M. Coates, Naval Post Graduate School
W. S. Diehl, Captain USN, Bureau of Aeronautics, Navy Department
Dr H. L. Dryden, Director of Aeronautical Research, National Advisory Committee for Aeronautics
Prof Donnell W. Dutton, Director, Daniel Guggenheim School of Aeronautics, Georgia School of Technology
G. R. Gaillard, Standardization Coordinator, Civil Aeronautics Administration, Department of Commerce
Dr Maurice A. Garbell, President, Maurice A. Garbell, Inc., Aeronautical Consultants
Prof Newman A. Hall, Mechanical Engineering Department, University of Minnesota
Dr Alexander Klemin, Aeronautical Consultant
Prof C. T. G. Looney, Civil Engineering Department, Yale University
Dr. Clark B. Millikan, Acting Director, Guggenheim Aeronautical Laboratory, California Institute of Technology
J. R. Moore, Aerophysics Laboratory, North American Aviation Corporation
Frederick T. Morse, Department of Mechanical Engineering, University of Virginia
R. Hosmer Norris, Project Hermes, General Electric Company
Dr Felix Saunders, Goodyear Aircraft Corporation
George V. Schliestett, Head of Fluid Mechanics Branch, Office of Naval Research, Navy Department
Dr G. L. Shue, Naval Ordnance Laboratory
Dr Harold K. Skramstad, National Bureau of Standards
John M. Wuerth, Aerophysics Laboratory, North American Aviation Corporation

Consumer Goods Committee Holds Elections

Robert S. Seidel, vice-president and comptroller of W. T. Grant Company, will serve for a third term as chairman of the Consumer Goods Committee, the general coordinating group in charge of standards for consumer goods under the procedure of the American Standards Association. Mr Seidel, who was re-elected at a meeting of the Committee on March 23, represents the National Retail Dry Goods Association in the standardization work.

Dr Faith M. Williams, director of the Staff on Foreign Labor Conditions, U.S. Department of Labor, was re-elected vice-chairman of the Committee. Dr Williams represents the American Association of University Women in the ASA program.

Additions to the CGC executive committee have increased this governing body to six members, with the addition of the chairman and vice-

chairman, and have brought into it representatives of the American Retail Federation, the American Home Economics Association, the American Federation of Labor, and the American Institute of Laundering. Representatives of the National Association of Finishers of Textile Fabrics and the National Retail Dry Goods Association were re-elected for another term.

Members of the Executive Committee in addition to the officers are now:

Herbert Bergdahl, American Retail Federation

Ardenia Chapman, American Home Economics Association

E. M. Edgerton, National Association of Finishers of Textile Fabrics

Jules Labarthe, Jr., National Retail Dry Goods Association

Margaret Scattergood, American Federation of Labor

James C. Stirling, American Institute of Laundering

New Isotope Laboratory For Small Business

The opening of a new Radioactive Isotope Laboratory has been announced by the United States Testing Company, Inc. The laboratory is designed to bring this new tool for research within reach of small and medium sized businesses which cannot as yet afford to build a proper laboratory of their own for conducting experiments.

The new laboratory will be under the direction of Dr T. S. Taylor and will be supervised by Mr J. J. Pescatore. Mr Pescatore was trained at the Oak Ridge Institute of Nuclear Studies.

Of the project Mr H. M. Block, vice-president of the company, says, "We believe that by bringing the use of radioactive isotopes for research work within the reach of practically any size business, we will be helpful in keeping the smaller fellows in competition with the bigger ones."

Preferred Ratings For Power Circuit Breakers Are Revised

By George Sutherland

THE new tables of preferred ratings for power circuit breakers, approved recently as a revision of the American Standard (C37.6) issued in 1945, meet all the usual needs of circuit breaker users and at the same time give both manufacturers and users the benefits of standardization. This is the opinion of the committee of users, manufacturers, and general interest groups, organized under the procedure of the American Standards Association, which prepared the 1949 edition of the American Standard Schedules of Preferred Ratings for Power Circuit Breakers, C37.6-1949.

The schedules are presented in four tables of ratings covering circuit breakers of the following types: indoor oil, indoor oilless, outdoor oil and outdoor oilless and low oil content. They represent a revision of similar schedules issued in 1945 and included in the compilation of American Standards for Circuit Breakers, C37.4-1945 through C37.9-1945.

When the committee started the work that led to the completion of the 1945 edition, a great variety of ratings had grown up over the years. The selection of the most needed sizes as American Standard ratings does not in any way prevent a user from ordering a nonstandard size if he has a special use for it. However, by standardizing on those ratings that are in greatest demand and by buying the standard ratings selected, it does make it possible for manufacturers to give their customers better service and ultimately cheaper breakers.

Number of Ratings Materially Reduced

In this 1949 revision the number of individual ratings has been reduced materially in each classification, resulting in a net over-all reduction of 43 ratings, from 121 in the 1945 Schedules to 78 in the 1949 edition. Because of the recent developments in the design of very large interrupting capacity breakers in the high-voltage outdoor types it was decided not to establish ratings

in the 287.5 kv and the 345 kv classes but to leave these to be determined "when and if required."

Other changes include a revision of the "rated voltage" kv values to conform to the latest recommendations of the Edison Electric Institute-National Electrical Manufacturers Association Joint Committee on Preferred Voltage Ratings for A-C Systems and Equipment, and the addition of a column of "maximum design" voltage ratings for the information of the application engineer. The thermal "short time" ampere ratings have also been changed from 5 second to 4 second. A "time in cycles" column has been added to Tables 1, 2 and 4.

Eliminations Based on Anticipated Usage

The 35 percent reduction in the number of ratings was not made by drawing red pencil lines across the old tables or in order to harass the application engineer and the purchasing agent, but the eliminations were based on the anticipated usage of the different ratings. These data were derived from the EEL-AEIC-NEMA Joint Committee on Power Circuit Breakers' study of the expected needs over a five-year period of a large number of public utility companies, government agencies, and large industry users, and from sales data furnished by the electrical equipment manufacturers. The committee believes that it is a practical standard with which the engineer can live and work economically.

In fact economy was the word foremost in the minds of both the user and the manufacturer representatives during the discussions on the Schedules in the meetings of the Edison Electric Institute-Association of Edison Illuminating Companies-National Electrical Manufacturers Association Joint Committee on Power Circuit Breakers preceding the acceptance of the standards. No standardization is worth while unless it results in greater efficiency in production and consequent decrease in cost, which means lower prices to the

Mr Sutherland, manager of the Substation Operation Department, Consolidated Edison Company of New York, Incorporated, is chairman of the Sectional Committee on Power Switchgear, C37. This committee, organized under the procedure of the American Standards Association, is sponsored by the Electrical Standards Committee.

user. It is believed very definitely that the new Schedules will ultimately produce lower costs in the production of power circuit breakers.

The 1949 revised Schedules of Preferred Ratings for Power Circuit Breakers has been printed as a separate document in order to make it available immediately. It will be included in the next compilation of the American Standard for Circuit Breakers, C37.4 through C37.9-1945, the other sections of which are in the process of being revised.

This revision will be the third Schedule of Preferred Ratings issued by the American Standards Association. The first standardization of circuit breaker ratings was accomplished in 1941 when two tables were adopted for oil circuit breakers only, one listing 43 ratings for indoor and the other 48 for outdoor.

In 1945 two other tables were added to cover indoor oilless and outdoor oilless and low oil content breakers with a substantial reduction in the number of ratings. It is interesting to note that since 1941 there has been a reduction in the number of ratings from 43 to 31 in the outdoor oil circuit breaker schedule, and from 43 to 18 in the indoor oil types—all with the definite purpose of lowering production costs and retail prices.

Copies of the American Standard Preferred Schedules for Power Circuit Breakers, C37.6-1949, are available from the American Standards Association at 35 cents.

President's Conference Calls for Industrial Safety

Attention is focused on the importance to the national economy of prevention of industrial accidents; ASA Safety Code Correlating Committee will study requirements

THE President's Conference on Industrial Safety, held in Washington, D. C., on March 23, 24, and 25, was an assembly of 1500 people representing federal, state, and municipal agencies; labor, insurance, and industrial groups. Convened by the President of the United States, the conference was intended to focus attention on the importance to the national economy of the prevention of industrial accidents. It followed similar conferences, also convened at the request of the President, to discuss programs for the prevention of highway accidents and on fire protection and prevention.

The Conference on Industrial Safety discussed reports of committees on accident records, analysis, and use; engineering; laws and regulations; research programs and services; education; and labor-management cooperation for safety. A coordinating committee on which Mr Thomas D. Jolly, ASA president, represented the American Standards Association, planned the conference. The details of operation were handled through the Division of Labor Standards of the U. S. Department of Labor, of which Mr Wm L. Connolly is director. The executive director of the Conference was Mr Vincent P. Ahearn, executive secretary of the National Sand and Gravel Association.

Conference Parallels 1919 Meeting

While this conference was the first in the field of industrial safety under the direction of the President of the United States, from the point of view of ASA operations it paralleled a previous national conference held in Washington, D. C., in 1919. This

earlier conference was under the auspices of the National Bureau of Standards. The two conferences were at least parallel in their relationship to the work of the American Standards Association.

The conference of 1919 was called primarily to consider ways and means to bring about uniformity in the legal and technical requirements for the prevention of industrial accidents then being established by a multitudinous number of governmental, technical, industrial, insurance and public interest groups. The National Safety Council had conducted an extensive study which had revealed a critical situation in the United States due to the promulgation of conflicting rules and regulations and safe practice recommendations. The survey had clearly indicated that many of these conflicting recommendations were unsoundly conceived and that the accident prevention movement was harmed thereby. It had been perfectly obvious, therefore, that some method would have to be established through which all of these ideas could be coordinated and correlated so that a consistent set of technical recommendations could be developed for use as the basis of governmental regulations and as the basis of voluntary accident prevention work.

The 1919 conference considered two plans. Under the first, the work would have been conducted by the National Bureau of Standards with the various industrial and labor groups cooperating. The second involved the use of the procedures of the American Engineering Standards Committee (now the American Standards Association). The AESC had been created just one year earlier to correlate the ideas of five technical

societies and three government departments in regard to engineering standardization.

How Safety Code Procedures Were Developed

The first session of this 1919 conference resulted in the appointment of a committee to study the two plans. The committee was to report to the national organizations represented in the conference; the organizations were to vote on the recommendations of the committee; and the results of the vote were to be presented at a later session of the conference. Formal plans for the initiation of the work were then to be made. After studying the organization of the American Engineering Standards Committee, the special committee decided that the procedures of the AESC for the development and approval of standards were ideally suited for use in the safety code program which the Washington conference had in mind. It found, however, that the organization of the AESC itself was too limited in its scope and that it should be more broadly representative of the various groups concerned with the safety code program. The AESC agreed, therefore, to open its membership to additional technical societies, trade associations, and governmental agencies. Based on this agreement the plan of using the procedures of the AESC (now the ASA) for the establishment of a national program looking to the development of uniform industrial safety recommendations was put to a vote of the national groups attending the Washington conference. Out of a total of 85 votes cast, 60 were in favor of the use of the AESC procedures. In addition,

45 of the national groups which voted for the use of AESC procedures also indicated that they would probably join the AESC as Member-Bodies.

Thus the work which has been carried on under the procedures of the American Standards Association in the field of accident prevention was born.

The original program recommended to the AESC included 37 proposed safety codes. There are now 155 such codes which have been designated American Standard.

Extensive Discussion Of Committee Reports

The second conference—the President's Conference on Industrial Safety, held in Washington in March this year—paralleled the first conference in the extensive discussions which took place during the development of the reports of the various committees, as well as on the floor of the conference itself. These emphasized the importance of American Standard Safety Codes, the need for their continued development, and the need for the development of such codes in fields not now covered, as well as the importance of more extensive use of such standards. This can best be illustrated by the following quotation from the report of the Engineering Committee of the Conference:

"Engineering safety standards are developed for use (1) by governmental regulating agencies, such as State labor departments; (2) by non-governmental agencies, such as insurance companies and industry associations which apply the standards on a non-mandatory basis; (3) as safety specifications in contracts and agreements; and (4) for industry in carrying out a safety program on a voluntary basis.

"Safety standards and safe practice procedures are formulated by (1) governmental agencies (State and Federal); (2) national associations having direct concern with particular problems, such as the American Gas Association, National Electrical Manufacturers Association, National Fire Protection Association, Manufacturing Chemists Association, American Foundrymen's Society, American Society of Mechanical Engineers, and the American Society of Safety Engineers; and (3) the National Safety Council in the form of Safe Practice Pamphlets. These Safe Practice Pamphlets are intended to provide an extensive body of information on safe practices although they are not written in code form.

"As can be imagined these numerous standards-making bodies originate standards in which there is a great lack of uniformity. The hardship caused by such a lack of uniformity is obvious. Country-wide standardization is needed (1) to encourage equipment manufacturers to design and build safety into their products; (2) to aid firms in interstate operations; and (3) to make it possible for State enforcement agencies to compare their prob-

lems in a more objective and constructive manner, and, thus to increase the effectiveness of their programs. All of these are basic reasons for supporting and advancing the program of the American Standards Association. The American Standards Association is recognized as the standards-coordinating agency, whose function it is to bring together the various groups having special interest in particular safety problems and possessing detailed technical knowledge pertaining thereto, for the purpose of formulating safety standards that can be adopted with few or no changes by governmental agencies or non-official groups whose job it is to formulate standards.

"At the present time there are 133 different ASA standards, and it is evident that this number does not represent complete coverage of all industrial safety problems. Even with the addition of other standards that are widely accepted, such as the Boiler Code of the ASME, the field is far from being covered. It is not within the province of this Committee to outline actual needs for the development of additional standards since this would require rather exhaustive study and review by experts. It seems evident, however, that for the most effective future work, a broad program of objective should be formulated, based upon such a study. Although in principle, the ASA does not initiate new projects, it would seem to be a proper function of this organization to sponsor such a survey and study.

"A more immediate problem than even this need for additional national standards is the pressing need of securing more widespread application and use of existing safety standards. A limited study of present State regulations shows that they provide inadequate coverage of industrial hazards and, in detailed code construction, only a small fraction of the States are making full use of existing standards. In this respect, it is suggested that the U.S. Department of Labor, in cooperation with the State labor departments, prepare an analysis of existing State statutes and codes, in regard to: (a) adequacy of coverage of safety problems in relation to the total needs and special problems of the several States; (b) adequacy of regulations in their technical details with particular reference to the utilization of recognized safety standards in their construction.

"Such a study, together with the detailed analysis of national standards available, should be of considerable help in the establishment and more efficient use of engineering safety standards."

Importance of Safety Codes Reaffirmed

The acceptance of this recommendation by the President's Conference reaffirms the decisions of the conference of 1919. It also recognizes the experience of 30 years of work in the development of safety standards by many industrial, insurance, labor, and governmental organizations under the procedures of the American Standards Association. In so doing it reaffirms the importance of this activity to the national economy and presents to ASA from all these groups a further mandate to carry on its well-established program. The report of the Engineering Committee was endorsed by the Committee on Laws and

Regulations through the presentation of the following recommendation:

"The Committee on Laws and Regulations joins with the Committee on Engineering in recommending that the principle of national standardization of safety codes be encouraged among state regulatory bodies and through education in industry."

In support of this recommendation, and in speaking of the program carried on under the procedures of ASA for the development of uniform safety standards, the Committee on Laws and Regulations stated:

"Uniform technical requirements are not the panacea for obtaining all that is desired in accident prevention work. As was mentioned in the discussion of overlapping jurisdictions, so much needs to be done in improving the efficiencies of individual groups that efforts should be concentrated in this direction. Uniform technical requirements are, however, one of the tools which can be used for this purpose.

"The groups which created this program and which participate in its operations have at least a moral responsibility to use its product. Failure to use places the finger of responsibility primarily on the governmental agency, and proof of the need for deviation from the uniform technical requirement is indicated."

Conformance with Standard Is Recommended

The President's Conference on Industrial Safety made further special reference to American Safety Standards in the Committee on Accident Records, Analysis, and Use. This committee recommended that insofar as possible "all industrial establishments" conform to the standard method of compiling industrial injury rates as published by the American Standards Association and that the American Recommended Practice for Compiling Industrial Injury Causes be used as a guide in making cause analyses.

Other reports include references to standardization in prevention of industrial accidents, thereby emphasizing the importance of the program which has been carried on through the procedures of the American Standards Association by all the groups concerned with accident prevention problems.

The request made by the President's Conference on Industrial Safety that a further study be made to determine what additional American Safety Standards should be developed and approved was agreed to at the meeting of the Standards Council of the American Standards Association held March 31. At that meeting the Safety Code Correlating Committee, on which many of the groups that participated in the President's Conference are represented, were asked by the Council to proceed with such a study.

The Time for Action is

Now

World-wide need for standardization challenges ISO to make effective its role as the international clearinghouse for activity in this field

CAN the International Organization for Standardization accept the responsibilities that will make it effective as the world's clearinghouse for standardization? This question has just been presented to the member associations by Howard Coonley, president of the ISO. Accompanying Mr Coonley's letter is a challenging report by E. A. Pratt, representative of the ISO to the United Nations Economic and Social Council. Mr Pratt's report shows how widespread is the active interest in standardization throughout the world as evidenced by the large number of standardization projects undertaken by the UN agencies and commissions. After preliminary consideration by the national standardization associations, the report will be discussed at the meeting of the ISO General Assembly at Paris in July.

"It was not foreseen at the time ISO was created that the United Nations, its Organs and Agencies, would initiate a great number of activities in the domain of standardization," Mr Coonley pointed out in his letter to the ISO Member-Bodies. "If ISO is to remain the recognized international standardization body, it must act as international clearinghouse for all matters pertaining to international standardization. This role will necessarily mean a bigger budget, more work for the Member-Bodies with the representatives of their governments working on United Nations standardization."

Mr Coonley emphasized the responsibility of the national standardization associations in strengthening the ISO to the point where it can meet the world's need for an effective international clearinghouse on standardization problems. "All Member-Bodies must realize that the future of our organization depends

on quick action," he said. "The opportunity is so great that it would be a grave error, to my mind, not to accept what is rightfully ours—world leadership in the sphere of standardization."

The International Organization for Standardization is recognized by the UN Economic and Social Council as a nongovernmental organization with consultative status. As such it has the privilege of sending an authorized representative (a consultant) to attend the meetings of the Council and its Commissions. E. A. Pratt, New York Consulting Engineer and formerly in charge of ISO projects with the American Standards Association, has been named by the ISO. As Consultant, Mr. Pratt receives any documents touching on standardization activities of the Council and its Commissions and Subcommissions; reports of conferences; reports of Specialized Agencies, and reports of the UN Secretariat in the fields of Economic and Social Affairs.

ISO Represented in UN Work

The ISO has the privilege of submitting written statements and suggestions for consideration by the Council and may ask the Council to bring them to the attention of any Commission that may be concerned.

As ISO Consultant, Mr Pratt can also present the views of the ISO at meetings of any Commissions if the Commission gives its consent, and can give the ISO views concerning the reports of the Commissions to the Council. The Commissions may consult with the ISO, as a nongovernmental organization with consultative status, either directly or through a committee or committees established for the purpose.

Of the nine Functional Commis-

sions set up by the ECOSOC, six have shown that they have some interest in standardization. These are permanent organizations performing functions assigned to them by the Economic and Social Council—on economics and employment; transport and communications; statistics; social problems; status of women; and population problems, for example. The three Regional Commissions (for Europe, Asia and the Far East, and Latin America) all have an interest in standardization. A fourth Regional Commission for the Middle East is now in process of organization.

The Economic and Employment Commission, for example, has a Subcommission on Economic Development with a special interest in standardization in relation to housing. Its responsibility is to advise the Commission on the principles and problems of long-term economic development with particular attention to the inadequately developed parts of the world. Its object is to promote the fullest and most effective use of national resources, to raise the level of consumption, and to study the effects of industrialization and changes of a technological order upon the world's economic situation. Its special interest in standardization centers on production and use of building materials for all types of construction and includes standardization of building materials and equipment, and rationalization of construction methods.

The Transport and Communications Commission is concerned with standardization in connection with inland transport throughout the world. It coordinates the transport and communications activities of the Economic Commission for Europe and of the specialized agencies.

The Statistical Commission is working to improve the compara-

bility of statistics compiled in the various countries. An International Standard Industrial Classification of All Economic Activities has already been recommended by the Council to all member governments of the UN for adoption as a national standard or at least for use in compiling statistics for international comparability. The Commission is also reported to be carrying on studies on standards for housing statistics. In preparing a multilingual glossary of technical terms, symbols, and notations used in statistical sampling, the Subcommission on Statistical Sampling has taken into consideration studies carried out by the French national standards association, the Association Française de Normalisation. It also plans to investigate the use of statistical quality control in facilitating mass buying and selling and in the general flow of international trade.

The Social Commission, which advises the Economic and Social Council on practical measures that may be needed in the social field, is reported to be concerned at present with minimum housing standards enforceable under penalty (structural and health standards); methods of construction; standardization of building materials; standardization of building equipment; and rationalization of construction methods in all fields of construction. Further study will undoubtedly be undertaken on housing in tropical areas, to determine potential local demand for standardized building parts and international interchangeability of building parts (dimensional coordination).

The Commission on the Status of Women has an interest in minimum structural and health standards enforceable under penalty for housing.

Standardization in the housing field is also an important concern of the Population Commission. It is reported to be active in the compilation and standardization of the statistical data on populations required for analysis of housing needs and housing standards as well as in the study of standards and definitions of housing statistics. In addition, it is reported to have an interest in building codes.

Housing and Construction Of Principle Interest

Housing and construction also seem to be of considerable interest to the regional commissions. Several of the committees and working parties of the Economic Commission for Europe are already active in certain fields of standardization. Minimum

Nations Active in ISO Committees and Holding Secretariats

Country	Committee Activity	Committee Secretariat	Country	Committee Activity	Committee Secretariat
Australia	15	2	Italy	35	1
Austria	19	1	Netherlands	52	6
Belgium	34	5	New Zealand	32	
Brazil	8	1	Norway	20	2
Czechoslovakia ...	28		Poland	26	1
Denmark	24	1	South Africa	5	
Finland	11		Switzerland	34	3
France	46	12	Sweden	41	2
Hungary	39		United Kingdom ..	21	10
India	23		USA	6	4
Israel	5		USSR	33	2

housing standards enforceable under penalty (structural standards), testing of building materials, standardization of building materials, standardization of building equipment, and rationalization of construction methods are of special interest to this commission. In addition, the Industry and Materials Committee is concerned with shortages of certain products such as ball bearings, and has standardization programs under consideration for these. It is suggested that ISO committees on ball and roller bearings, automobiles, timber, building construction, rotating machinery, and transformers, as well as some of the other committees of the International Electrotechnical Commission, may be of special interest to this Commission.

Asian Problems Differ From European

The emphasis of the work under the Economic Commission for Asia and the Far East is different from that of Europe because of the difference in industrial development. In Asia and the Far East it is expected that coordination of standards will be important in such subjects as fuel and power, transport and transport equipment, textiles, and heavy engineering industries. This Commission has asked the Food and Agriculture Organization to hold a meeting of experts to discuss the question of standardization of timber terminology. ISO committees such as those on solid mineral fuels, agricultural products, timber, and building construction, and possibly those on rubber and raw materials for paints, varnishes, and lacquers may be of special interest here.

The Economic Commission for Latin America coordinates its program with that of the Inter-American Economic and Social Council (Organization of American States). This inter-American council has before it a proposal to set up a committee of standards organizations to facilitate the unification of standards of the members of the Inter-American System. The Pan American Union (Organization of American States) is concerned with standardization in the field of housing, building materials, construction methods, minimum standards enforceable under penalty, and uniform technical terminology. The Commission for Latin America is also directly interested in statistical standardization.

The Statistical Office of the UN Secretariat-General coordinates the over-all statistical program of the United Nations and the Specialized Agencies and assists the Statistical Commission and its Sub-Commission in the formulation of standards.

The work on housing is coordinated by a Technical Working Group on Housing and Town and Country Planning. The Secretary-General has also been requested by the Economic and Social Council to take definite steps toward the coordination of the cartographic services, including the development of uniform international standards.

The Administrative Committee on Coordination has the responsibility for coordinating the activities of the intergovernmental agencies directed toward the improvement of economic and social conditions throughout the world. The Secretariat Working Group on Housing is under its jurisdiction.

In addition to the Functional and

Regional Commissions, many of the Specialized Agencies which, although independent organizations, are also part of the United Nations system, have an important interest in standardization. Relations of the ISO with these agencies would be handled with them direct, however, and not through the United Nations. In many cases such cooperative relations already have been established.

ILO Active In Safety and Housing

The International Labour Organization, for example, has close working relations with the International Organization for Standardization and with the various national standards associations. The Model Code of Safety Regulations for Factories which was to have been submitted to a Preparatory Technical Conference in the autumn of 1948 is one of the activities of the ILO that is related to standardization. The ILO is also active in connection with housing and is interested in standardization of building materials and equipment.

The International Civil Aviation Organization is a specialized agency which has an understanding with the International Organization for Standardization as to the scope of their respective standardization programs and with which the ISO expects to have cooperative relations. Close collaboration will be needed on subjects of concern to both. For instance, the ISO committee on Quantities, Symbols, Units, Conversion Tables, and the committee on Terminology cover subjects also being treated by ICAO. It is also pointed out that the work of the ISO committee on General Definitions relating to Test Results may be of interest in connection with ICAO's proposed studies regarding methods of evaluating and testing the strength of airport runways.

The Food and Agricultural Organization has a special interest in the work of such ISO committees as those on agricultural products, terminology, building construction, rubber, natural or artificial fibers, and timber. Fifty-two countries are already cooperating in a study of existing standards for the measurement and grading of forest products and terminology, which the FAO now has under way. This study will be used as a basis for formulating recommendations for simplified standards and uniform terminology for international adoption.

Some of the activities of the United Nations Educational, Scientific, and Cultural Organization, such as those on technical terminology, documentation, and possibly laboratory equipment, involve standardization.

The World Health Organization has a special interest in health standards, as well as in methods of building construction and in safety measures in construction methods. It also has an active committee of experts working on biological standardization. Its constitution gives WHO the power "to develop, establish, and promote international standardization with respect to food."

One of the objects of the World Meteorological Organization is to agree on measures for standardizing the meteorological services of all states. The General Secretary of the ISO has already established contact with the Organization's secretariat.

The International Trade Organization functions now through an Interim Commission with a secretariat at Geneva. Its program includes the possible international adoption of standard tariff and commodity classifications, and the question of adopting standards, nomenclatures, terms, and forms to be used in international trade.

Standardization of statistics comes within the sphere of the Interna-

tional Bank for Reconstruction and Development. It is not yet known whether the Bank will engage in other standardization activities. The ISO does, however, have a committee dealing with standardization in the sphere of banking.

Although the International Telecommunications Union is not now known to be active in standardization, some of the Advisory Committees of the International Electrotechnical Commission cover subjects which fall within its sphere of interest, such as the IEC committees on radio communication and the International Special Committee on Radio Interference.

Technical Committees Coordinate Work

At the present time, the International Organization for Standardization has 56 active technical committees. Through these committees it is working to coordinate the technical requirements in the national standards of the various member countries, not to develop international standards. The national standardizing bodies of 27 countries are members of ISO. The American Standards Association is the United States member. Only those that have an interest in a project take part in the work of the committee, although others may be kept informed of the progress of a committee's work if they want to know what is being done but do not care to be active. The secretariat, or administrative responsibility for a committee's work, is assigned to a member when that country has an important interest in the subject and the national standardizing body, backed by the groups concerned, have requested the responsibility. At the present time, the United States is participating in the work of six committees, and has the secretariat for four others.

Where the United States Stands on International Projects

UNITED STATES activity in the International Standards Organization, whose Council and General Assembly will meet in Paris July 5 through July 8, consists of probable active participation in 14 of the 56 active projects. The U.S. has been offered the secretariat for

seven of these. It is also considering participating in three more projects and one proposed project.

The undertakings for which the American Standards Association may hold the secretariat include proposals on test pressures for the acceptance of stationary boilers, pe-

troleum products, cinematography, photography, plastics, viscosity, and pipelines and other fixed installations for the petroleum industry.

ISO/TC projects 36 and 42, on Cinematography and Photography, respectively, are showing progress. ASA has circulated a large number

of American Standards in the field of motion pictures to member countries. A number of comments have been received, and final action upon international agreement is foreseen for the near future.

Eleven American Standards on photography were circulated to member bodies for consideration. The Belgian Standards Association has reported agreement with all of these but one, American Standard Sensitometry of Photographic Papers, Z38.2.3-1947, while the British Standards Institution has agreed to American Standard Method for Determining Photographic Speed and Exposure Index, Z38.2.1-1947 and Diffuse Transmission Density, Z38.2.5-1946. Since no additional comments have been received, ASA proposed to the member bodies in March that the latter two American Standards be agreed upon internationally.

Deutscher Normenausschuss, the German standards body, has endorsed the procedure contained in American Standard Z38.2.1-1947, with recommendations concerning the marking of speed numbers.

Although a number of government and industry groups agreed in 1947 that ISO/TC 66 on Viscosity is a desirable project for which the ASA should accept the secretariat, there has been no activity since.

Secretariat for Aircraft Still Being Considered

ASA has also been invited to accept the secretariat of ISO/TC 20, Aircraft. The Canadian Standards Association, which was originally assigned the project, has declined. At a meeting, March 28, representatives of aircraft industry manufacturers and operators indicated their interest in participating. The question is now before other groups and government organizations.

A proposal for ISO/TC 11, Test Pressures for the Acceptance of Stationary Boilers and Unification of Boiler Construction Codes, is before the boiler code committee of the American Society of Mechanical Engineers. However, acceptance of the secretariat is still under consideration by this group.

Petroleum Products Considered

Petroleum Products, ISO/TC 28, is also a tentative activity. ASA Committee Z11 is making a canvass of interested groups in this country to ascertain whether there is sufficient interest to justify acceptance of the secretariat or active participation.

No decision has been reached by American industry on continuance of

the secretariats for ISO/TC 61, Plastics, and ISO/TC 67, Pipelines and Other Fixed Installations for the Petroleum Industry.

Projects for ASA Active Participation

A meeting of ISO/TC committee 4, Ball and Roller Bearings, will take place in Paris, June 27 and 28, at which ASA will be represented by two delegates. An ASA subcommittee of Sectional Committee B3, on Ball and Roller Bearings and B54, on Numbering Systems for Anti-Friction Bearings, has been appointed to prepare a proposal for ISO on this project, for which Sweden holds the secretariat.

ASA Standards Council approved active participation in ISO/TC 58, Gas Cylinders, and sent Franklin R. Fetherston, secretary-treasurer, Compressed Gas Association, Inc.; Frederick J. King, chief engineer, Linde Air Products Co.; and F. Carl Saacke, engineer, Air Reduction Sales Co., as official delegates to the April meeting in London, which was held too late to be covered in this issue. The Compressed Gas Association nominated the representatives.

The British Standards Institution, which holds the secretariat for ISO/TC project 43, Acoustics, a continuation of a former ISA activity, has recently initiated considerable activity, primarily on the subject of standard pitch and noise measurement. ASA committee Z24 is preparing American comments. (See What's the Pitch, Boys, page 101, April STANDARDIZATION).

Another British-sponsored committee—ISO/TC 45 on Rubber—met in England last year, and is now studying American rubber technological methods of testing and identifying latex, and similar problems proposed at the meeting. ASTM committee D 11 is the responsible group in this country for work in this field.

India has the secretariat for ISO/TC 50, Shellac, in which the U. S. is a participant. Following a visit to this country in the summer of 1948 by Dr Lal C. Verman, director of the Indian Standards Institute, there has been an active interchange of information on grading and tests for shellac.

Meetings were held in June and October, 1948 of ISO/TC committees 38, Textiles, and 22, Automobiles, respectively. ASA committee L14 is working on new definitions of washability which will probably come before the ISO. J. H. Hunt represented the Society of Automotive Engineers and the Automobile

Manufacturers Association at the meeting of TC/22 at the Hague, Netherlands.

The question of ASA's participation in ISO/TC 56, Mica, has been circulated to industry and is now before the Board of Examination for its recommendation to the chairman of the Standards Council. The organizations whose replies were received believed the United States should participate.

Another invitation which must be decided upon is that of the United Kingdom to support their proposal for acceptance of the Unified System of Screw Threads as a world standard (ISO/TC 1).

There has been no decision as yet on whether ASA shall take an active part in ISO/TC 44, Welding; ISO/TC 1, Screw Threads; and ISO/TC 3, Limits and Fits.

American groups have recommended participation in ISO projects on Solid Mineral Fuels (Coal and Coke), TC/27, and Iron and Steel, TC/17. Action on these recommendations will be taken by ASA shortly.

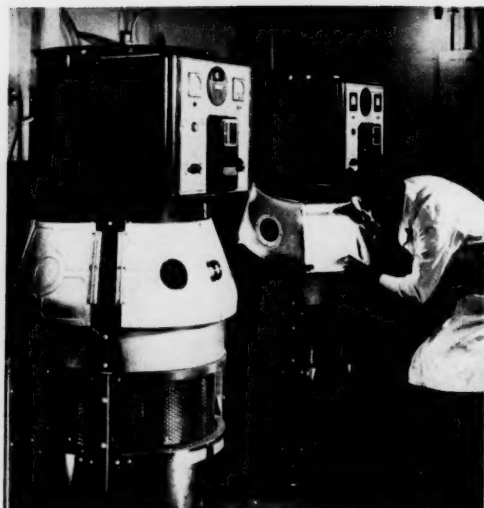
A project recently proposed by the Standards Institution of Israel, and as yet unnumbered, is on methods of testing for vertical deep-well pumps. It is possible that the ASA may participate actively in this undertaking because of its parallel program on pumps, requested by the American Water Works Association, and American Society of Mechanical Engineers.

Standards Engineers Meet

The Standards Engineers Society held their spring meeting in New York on March 17. In a short business session, the membership revised the amount of dues to cover present and proposed activities. A new Constitution and By-Laws Committee was appointed.

In the technical session, Paul K. McElroy, chairman of the General Radio Company's Design Standards Committee and a member of the society's Executive Committee, was the speaker. His subject was "What Practical Standardization is NOT." He reviewed the many popular misconceptions about standards and standardization procedures that he has encountered in his own work and as a member of the General Standards Committee of the Radio Manufacturers Association.

This negative approach to the subject brought out forcibly the arguments for clearer thinking on the part of those who must pass on the acceptability of proposed engineering standards in any industry.



Textile abrasion and hosiery tests (left) are according to standard methods. In Fade-Ometers (right) color fastness of fabrics is determined. If used internationally, these tests would help to assure high quality and uniformity of fabrics.

Does "textile standardization" Mean Product Limitation?

WHAT is meant by "textile standardization?" Many people, even in the textile industry, assume that "standardization" as applied to textiles means the limiting of manufacture to a few definitely described and specified fabrics—controlled and limited production similar to the control in England during the Second World War when British weavers were permitted to produce only the "utility fabrics" specified by the government.

This is not the type of standardization of textiles being done in the United States by the various national groups, through the American Standards Association, and in Technical Committee 33 on Textiles of the International Organization for Standardization. This textile standardization does not in any way prescribe or control the product of a manufacturer nor interfere in any manner with his freedom to determine the merchandise he wishes to produce.

It does, on the other hand, consist

By D. E. Douty

of the development of a system of standard definitions and terms pertaining to textiles and standard methods for testing the characteristics of textile materials (including instruments, apparatus, and substances used in the tests). It also consists of developing specifications defining the characteristics upon which the utility

and serviceability of the textile materials depend.

This type of standardization is well illustrated in the 43 standards for textiles recently approved by the American Standards Association. These had been developed by nationally representative and recognized committees of the American Society for Testing Materials and the American Association of Textile Chemists and Colorists. They cover such problems as definitions of terms, specifications for colorfastness to different conditions that might result in fading, a system of yarn numbering, and methods of testing and tolerances for different types and different characteristics of fabrics.

These standards had been developed over a long period of time on a national basis, starting with the organization of Committee D-13 on Textiles by the American Society for Testing Materials. Since that time other textile societies and associations have joined in the work, with

Mr Douty is Chairman of the Board of the United States Testing Company, Inc. He was chairman of the United States delegation to the meeting of the ISO Technical Committee 33 on Textiles, held at Buxton, England, in June of last year. He is a member of the Company Member Committee of the American Standards Association.

the result that the United States has an extensive group of textile standards and tentative standards.

When a committee on textiles was organized by the International Organization for Standardization last year, the American Standards Association as the United States member of the ISO was asked to submit any recognized American Standards to the ISO committee for consideration. The ASA Sectional Committee on Textiles, L14, carefully studied the standards completed by the various national organizations and recommended these 48 not only for approval by the American Standards Association, but also for international consideration.

They have been approved by the American Standards Association as well as having been referred to the ISO committee, ISO/TC/38. The British Standards Institution, which holds the secretariat for this committee and therefore has the administrative responsibility for it, will send copies to the national standardizing bodies in the other countries that are members of the committee. They will thus represent the American viewpoint as to the technical requirements which should be considered in international agreements for coordination of national standards.

They represent only part of the work to be undertaken by this international committee. The general scope and value of this international program was defined at the meeting last year in Buxton, England, as:

"To ensure a common understanding among producers, manufacturers, converters, distributors, and consumers; this committee is concerned with the coordination and unification of national standards for all kinds of fabricated textiles and for the fibers, yarns, threads, and cords entering therein including:

- (i) Textile agents or auxiliaries and chemical products required in processing and for testing.
- (ii) Methods of test for each of the above.
- (iii) Terms and definitions."

This represents a problem of correlation which may be difficult and will undoubtedly require a long period of consultation and many conferences.

What Will International Agreement Accomplish

What effect will such a program of international agreement have on the international textile trade? Will it reduce frictions due to misunder-

standings? Will it assist in developing international trade markets in textiles? Will it benefit the world's consumers of textiles? How will it affect the producers of textiles? These are some of the many questions that arise in considering the international program.

A forecast of its effects can be based only upon a speculative analysis of some of the known and recognized features of international textile commerce as it is conducted today.

International Standards— A Universal Language

The first outstanding influence of international agreement on standards will be equivalent to the introduction of a universal language. The basic concepts in each standard will become universal. For the use of each member-nation they can be expressed in the language of that nation and the numerical values involved can be expressed in the equivalents of the standard unit systems of that nation.

This will make possible the development of a world market of free competition for textiles with small chance for confusion or misunderstanding, and will make it possible to verify quality and check contracts by the use of uniform testing methods.

Of course, special privileges in various parts of the world will not be given up without vigorous opposition to any movement that will eliminate them. But the peoples of those areas will profit—and sometimes

very substantially—through their ability to buy in a free world market based upon coordinated national standards.

With a system of coordinated textile standards, cotton mills in Brazil can buy their yarn in England, the United States, India, or Japan; a merchant can buy cretonnes in England, Czechoslovakia, the United States, or any other producing nation; a ship builder can buy duck in any producing country under an international system of numbering, and under internationally agreed upon standard methods of determining weight, width, strength, stretch, mildew-proofing, and other factors.

Of course, all these possibilities of expansion of international trade in textiles through establishing universal terminology and tests provide only one phase of freedom in purchasing. There may be many other trade barriers which will prevent complete freedom of international commerce and work to the detriment of the consumer. But even in connection with these other barriers, such as tariffs, license regulations, and other import restrictions, international agreement on standards can help to smooth the flow of trade. The existence, acceptance, and use of international terms, definitions, and test methods for expressing, verifying, and recording the characteristics of textile merchandise will eliminate confusion, avoid delays and misunderstandings, and remove many of the hazards that result in losses to import-export interests.

Analysis Made of ASA's 1949 Activities

A comprehensive analysis of ASA's program of activities, budget, and financing plan for 1949 was circulated to the membership of the Association during the last week of March. This publication outlines the scope of ASA's work with particular emphasis on the areas covered by the correlating committees.

A complete list of projects is contained in this report, the costs of which are shown to be distributed among the 35 industries from which ASA expects to receive most of the required financing for the current year. The operating requirements call for an expenditure of approximately \$534,000 with provision for a reserve, bringing the financing goal for 1949 to a total of \$600,000.

While this publication was distributed on a limited basis, copies are available on request from those interested in obtaining a general picture of how the ASA operates.

This presentation is unique in character and for the first time shows the budget in terms of its relation to the correlating and sectional committee activities.

Soap or Synthetic?



Bauer, Cushing

Popularity of synthetic detergents brings need for new test methods for standard performance.

By Devey H. Palmer

FEW industries are undergoing greater changes in product development and shifts in brand sales than the soap and detergent industry. Within relatively few months many old stand-by brands of soap and soap compounds have taken second or third place to the new and sometimes more effective synthetic detergents. How good are these new products? What standards are available to compare their effectiveness?

At no time has the housewife had a set of performance standards which could be referred to in judging the quality of soap products purchased for household use. For many years there has been a group of specifications based on soap analyses which were developed by the American Society for Testing Materials for commercial purposes primarily. The housewife has learned through a process of trial and error something about the characteristics of the

brands she has regularly purchased—which have been best for dishes, for textiles, and for general cleaning purposes. Today she must apply her empirical methods to the new synthetics, as past knowledge will not suffice to judge their effectiveness.

Just recently the American Standards Association has approved as American Standard a set of ASTM standards for several classes of soaps and detergents (See Table I). While these standards have been used principally by commercial and industrial laundries in their purchases, some of them are applicable to types of soaps sold in retail stores.

Table II represents an effort to classify the major brands of household soaps according to type and the applicable standards. It will be noted that out of the newly adopted standards for nine soap products four are applicable to the soaps used in the home. These are the standards for ordinary bar soap, white floating soap, alkaline soap powder, and milled toilet soap. The standards for chip soap, powdered soap, built soap powder, and the combined chip and powder soaps with rosin are all for institutional type soaps which have few if any counterparts in the household field. The remaining standards are for three detergents, namely, caustic soda, soda ash, and trisodium phosphate, which are never sold as such in the retail market but are available separately or in mixtures

under various trade names. Such products are used as water softeners or for general cleaning purposes.

The chief requirements for the three types of cake soaps are minimum soap content, maximum free alkali, and minimum requirements for other ingredients such as sodium chloride, rosin, and alkaline build-

Table I—Newly Adopted American Standards for Soaps and Detergents

Type of Soap	ASTM Designation	ASA Designation
White Floating Toilet Soap	D 499-39	K60.4-1949
Milled Toilet Soap	D 455-39	K60.6-1949
Ordinary Bar Soap (Laundry Bar Soap)	D 497-39	K60.2-1949
Chip Soap	D 496-39	K60.1-1949
Powdered Soap	D 498-39	K60.3-1949
Alkaline Soap Powder (Washing Powder)	D 534-42	K60.5-1949
Built Soap, Powdered	D 533-44	K60.7-1949
Compound Chip Soap (with Rosin)	D 690-44	K60.8-1949
Compound Powdered Soap (Granulated, with Rosin)	D 691-44	K60.9-1949
Caustic Soda	D 456-39	K60.10-1949
Soda Ash	D 458-39	K60.11-1949
Trisodium Phosphate	D 538-44	K60.12-1949

NOTE: ASTM has submitted new editions of D 499-39, D 455-39, and D 690-44 to ASA.

Mr Palmer is research director of the Hospital Bureau of Standards and Supplies, and a member of the Consumer Goods Committee of the American Standards Association. He is lecturer on Standards of Quality for Institutional Supplies in the School of General Studies, Columbia University.

**Table II—Classification of Competitive Brands
of Household Soaps Manufactured by the Major Soap Companies**

This table represents a classification of various types of household soaps manufactured by the major soap companies and is not intended to imply that the soaps in any one column are identical or meet completely all the requirements of the standards referred to.

Applicable American Standard Specifications—	K 60.4	K 60.6	K 60.2				K 60.5
Manufacturer	White Floating Soap	Toilet Soap	Laundry Bar Soap	Fine Flakes	Soap Chips	Granular and Bead	Washing Powder
Armour & Co.		Fine Art Clipper Dial	Sail	Chiffon		Perk	1776 Babbitt Lighthouse Big Ben
Colgate-Palmolive-Peet	Octagon Kirkmans	Cashmere-Bouquet Palmolive	Octagon Kirkmans	Octagon Kirkmans		Super Suds Kirkmans Octagon	Octagon Kirkmans
Fels and Co.			Fels Naphtha		Fels Naphtha		
Lever Brothers	Swan	Lux Lifebuoy		Lux		Rinso	Gold Dust Silver Dust
Procter & Gamble	Ivory Pearl	Camay	American-Family P&G White-Naphtha	Ivory Ivory Snow	Chippo American Family	Duz Oxydol	
Stanley, J. T.	Stanley	Babeskin	Big Boy	Dual	Big Boy		Ideal
Swift & Co.	Wool Soap	Maxine	Arrow Pride	Wool Flakes	Quick Arrow		Pride

NOTE: No American Standard specifications or methods of test are available now for fine flakes, soap chips, or granular and bead soaps.

ers. Naturally, the maximum requirements for free alkali and alkaline builders will be much higher for the laundry soap than for the two toilet soaps. The alkaline washing powders (ASTM D 534-42; K60.5) were for very rough scrubbing work. Because of their high builder content they are not suitable for dishwashing or laundering.

Despite the substantial number of products sold under the classification of granular soaps, soap chips, and fine flakes, there are no applicable specifications. The soap chips are built for light-duty work such as dishwashing and for lightly soiled fabrics. The granular or bead soaps usually contain phosphate builders and are therefore designed for heavy-duty work—dishwashing in hard water areas and for heavily soiled fabrics. The fine flakes are, with the exception of toilet soaps, the purest of the soaps manufactured and are used primarily for washing woolens and fine fabrics.

Synthetic detergents are fast becoming one of the most important classes of cleaning compounds used in the household. The change-over to these detergents, particularly in hard water areas, is so rapid that reliable figures on their total consumption are difficult to obtain.

Three years ago synthetic detergents represented only about 2 percent of the household detergent mar-

ket. Today they account for 25 to 30 percent. Manufacturers say they will sell a billion pounds in 1952, which will be about one-half of the total annual sales of detergents of the non-liquid type. Already in many areas the biggest sellers among dishwashing compounds are the new synthetic products. For example, the *Milwaukee Journal Consumer Analysis for 1948* shows that Vel and Dreft are far ahead of all compounds for dishwashing purposes in the Milwaukee area. Sales of these two detergents for washing fine fabrics are also increasing rapidly in the same area. The popularity of the synthetic detergents is due principally to the fact that they do not form insoluble curds

with the minerals in the water, a characteristic of great importance in hard water areas.

If it has been difficult to formulate and apply specifications for soap products which will have meaning for consumers, it is even more difficult to do this for synthetic detergents. Most of the synthetic products being sold are mixtures of a synthetic material with an alkaline builder and, unlike soap compounds, their cleaning effectiveness cannot be predicted on the basis of their formulation. These synthetic compounds are as a rule more effective than soap for washing dishes, woolens, and fine fabrics. On the other hand, many of them are not effective for washing cotton materials. It is only within recent months that products have been brought out which promise to be as effective, or possibly more effective, in washing cotton materials than soap compounds.

Table III lists several of the most widely sold synthetic detergents. Note that the products listed in the first column are not suitable for cottons and the general family wash. They are mixtures of an anionic detergent and usually sodium sulfate, and are very effective for dishes. They also work quickly and well on woolens and synthetic fabrics. Glim, the only liquid product in this list, is composed almost entirely of a nonionic surface active agent. This type

Table III — Some Important Brands of Synthetic Detergents

Manufacturer	Light* Duty	Heavy* Duty
Babbitt, B. T.	Glim	
Colgate-Palmolive-Peet	Vel	Fab
Heinz Co., H. J. (distributor)	Swerl	
Lever Brothers	Breeze	Surf
Procter and Gamble	Dreft	Tide

* Light duty—for dishes, woolens, and fine fabrics; heavy duty—for family wash.

NOTE: The above synthetics are typical of the brands that have been introduced in recent years. They are classified on the basis of end use.

of detergent is considered by some experts to be particularly effective for dishwashing. The family wash type of detergents—Fab, Tide, and Surf, to name a few—are built with an alkaline salt, usually a phosphate or silicate or both, in such proportions as to give a particularly effective washing agent for cotton fabrics.

Even the toilet soap field has been invaded by the new synthetic products. Drene, a hair shampoo, has been on the market for several years and other products of similar nature are being introduced. A synthetic bar soap called Vel Beauty Bar Soap is being introduced in several areas. This synthetic product is less alkaline than ordinary toilet soaps, does not form curds in hard water, and will probably, like most synthetics, cause less skin reaction than some soaps, particularly those containing coconut oil.

All the estimates regarding the effectiveness of these new compounds are based on actual laboratory tests for detergency. Unlike the soap com-

pounds, it is impossible even for the experts to judge the cleaning effectiveness of these compounds on the basis of their formulas.

Consumer preference and even laboratory tests have been based on the foaming or lathering characteristics of soap and soap compounds. For synthetics, the measurement of such a characteristic has no meaning because some of them with excellent detergent qualities do not foam. Without expert guidance, the consumer must therefore form his judgment of these compounds solely on the basis of his own experience or the results obtained by those who have made detergency tests.

Conclusions

In considering the problem of consumer standards for detergents, we must face the fact that the rapidly expanding synthetic product field will not lend itself to the old method of formulating standards on the basis of ingredients or technical analyses.

Accurate comparisons of the effectiveness of synthetic compounds can be made only by standard washing test methods. In light of the work that has been done on the standardization of soiled test materials and washing methods by such laboratories as the American Institute of Laundering and the United States Testing Company and the work that has been done by the National Sanitation Foundation, the U. S. Public Health Service, Foster D. Snell, Inc., and the York Research Corporation on methods of testing dishwashing compounds, it should now be possible to write performance specifications for all the major types of detergents, including soap and synthetic materials. Despite the complexity of all the products that are manufactured in the soap and synthetic field it now appears feasible to devise comparatively simple laboratory tests to simulate service conditions very closely and thus meet the demands of consumers for standards of performance.

MSCC Re-elects Officers, Reviews Activities

The Mining Standardization Correlating Committee re-elected its officers and Executive Committee for another term at its meeting March 23 at Pittsburgh. Lucien Eaton, consulting engineer of Milton, Massachusetts, representing the American Mining Congress, is chairman. M. D. Cooper, National Coal Association, and representative of the Coal Mining Institute of America, is vice-chairman for the groups concerned with coal mining; and B. F. Tillson, consulting engineer of Montclair, New Jersey, representative of the American Institute of Mining and Metallurgical Engineers, is vice-chairman for the groups concerned with metal mining.

Members of the Executive Committee, in addition to the officers, are:

Richard Maize, secretary, Department of Mines, Harrisburg, Pennsylvania (Mine Inspectors Institute of America)

J. J. Forbes, chief, Coal Mine Inspection Branch, and assistant chief, Health and Safety Division, Bureau of Mines, U.S. Department of the Interior (U.S. Department of the Interior)

David Stoetzel, Jr., Mining Section, Industrial Engineering Division, General Electric Company (National Electric Manufacturers Association)

Work has been started during the past year to bring several of the standards under the jurisdiction of the MSCC up to date and to initiate

a number of new projects. The chemicals used and standard practices for the preservative treatment of mine timbers is the subject of one of the proposed new projects. Color marking of terminals and cables used on electrical equipment for mining may also be initiated after work now being done by the American Mining Congress and the National Electrical Manufacturers Association is completed.

Recently developed mining techniques are being studied by subcommittees of the Sectional Committees on Coal Mines, M6, Safety Code for Coal Mine Transportation, M15, and Underground Transportation in Metal Mines, M18, for possible revision of the standards approved in 1928 and 1931.

Active work has been resumed on revisions of the American Standard Safety Rules for Installing and Using Electrical Equipment in Coal Mines, M2-1926, and the Safety Rules for Installing and Using Electrical Equipment in Metal Mines, M24-1932.

Reaffirmation of the American Standards on Frogs, Switches, and Turnouts for Coal Mine Tracks, M7.1-1933 and M7.2-1933, is being considered. Both of these standards have been reviewed and republished without change recently by the American Mining Congress, the sponsor.

Study in connection with a possible revision of the American Standard Wire Rope for Mines, M11-1927 has brought out the need for research to develop adequate methods of determining when wire ropes should be withdrawn from service. It is expected that investigation of the application of the principles of industrial radiology will be made to learn whether this new science can be helpful in this problem, which is as old as the use of wire ropes themselves.

Company Member Conference to Meet May 19

At the March meeting of the Administrative Committee of the ASA Company Member Conference it was announced by S. H. Watson, chairman, that arrangements had been made for a full meeting of the Company Member Conference to be held May 19 at the Benjamin Franklin Hotel, Philadelphia. It was suggested that there be a tour of the Radio Corporation of America research laboratory at Princeton, N. J., the following morning, and a demonstration of color television.

Standards from Other Countries

MEMBERS of the American Standards Association may borrow from the ASA Library copies of any of the following standards recently received from other countries. Orders may also be sent to the country of origin through the ASA office. The titles of the standards are given here in English, but the documents themselves are in the language of the country from which they were received.

For the convenience of our readers, the standards are listed under their general UDC classifications.

332.1 Banking. Printed Forms

France

Banking Forms for Personal Accounts Statement, AFNOR K13-10 through K13-13
Forms for Stock, Etc. Memorandum, AFNOR NF K12-46

614.8 Prevention of Accidents. Safety Measures

Chile

Prevention of Industrial Accidents, INDITECNOR 2.68-1

United Kingdom

Portable Fire Extinguishers of the Water Type (Soda Acid), BS 138-1948

621.3 Electrical Engineering

Germany

Paper Capacitors 125 to 500 Volt, DIN 41166
Relays, DIN 41220 Bl. 1 and 2
Method of Attachment of Transformer Bushings, DIN 42538
Transformers, Oil-Draining Plug, DIN 42530
Electric Railways, Brushholders, DIN 43050/1
Electric Railways, Current-Carrying Spring, DIN 43054 Bl. 1
Electric Railways, Turbo-Generators, Single Phase 16 2/3 Cycles/Sec, DIN 43110
Railless Battery-Operated Motor Cars, Car Coupling Hook and Bolt, DIN 43550
Spiral Spring for Measuring Instruments, DIN 43801
Ferrules for Brush Cables, DIN 46224
Binding Posts and Accessories for Low-Voltage Wiring, DIN 46260 Bl. 1 and 2, 46261 Bl. 1 and 2, 46262 Bl. 1 to 5
Binding Posts and Accessories for High-Voltage Wiring, DIN 46265 Bl. 1 and 2, 46266 Bl. 1, 2 and 3
Reels for Bare and Insulated Wires, DIN 46390
Overhead Powerline Equipment: Suspension Insulator Caps and Parts, DIN 48060/1
Telephone Switchboard Signal Lamp Cap, DIN 49602
Rules Relative to High-Voltage Circuits in Medical X-Ray Appliances, DIN 57120
Rules Relative to Lead-Covered Rubber Insulated Power Cables, DIN 57262

Instructions for Mechanical and Thermic Testing of Solid Insulating Materials, DIN 57302

Instructions for Testing of High-Voltage Insulators, DIN 57447

Test Procedure and Testing Instruments, General Rules, DIN 57470

Rectifiers, General Rules, DIN 57555

Instructions Relative to Temperature Limiting and Regulating Devices, DIN 57631
Regulations for Electric Lighting Up to 750 V, DIN 57710

Safety Rules for Power Distribution Lines of 1000 V and Over, DIN 57111

Regulations for Outside Cables in Telecommunication Installations, DIN 57816

United Kingdom

Reels for Covered, Solid, Round, Electrical

Winding Wire, BS 1489-1948

Impregnated Asbestos-Covered Solid Copper Conductors, BS 1497-1948

621.6 Apparatus for Conveyance and Storage of Gases and Liquids. Conduits and Pumps

Germany

Flat-Wedge Type Valves for Heating Lines, DIN 3204

Round-Wedge Type Valves, Cast Iron, DIN 3226

Hot-Air Blower Valves, DIN 3240

Gas Cock for Flexible Tubing, DIN 3253

Connecting Nozzle for Flexible Tubing, DIN 3254

Bending Radii of Seamless Steel High-Pressure Pipes, DIN 9872

United Kingdom

Asbestos Cement Flue Pipes and Fittings—Light Quality, BS 567

Asbestos Cement Soil, Waste and Ventilating Pipes and Fittings, BS 582

Asbestos Cement Flue Pipes and Fittings—Heavy Quality, BS 835

Wrought Copper and Wrought Zinc Rain-water Goods, BS 1431

Ten Gallon Tinned Steel Milk Can and Lid, BS 1484

621.9 Machine Tools. Tools. Operations, in Particular for Metal and Wood

Chile

Testing Sieves, INDITECNOR 2.4-4

France

Broach Pull Ends, AFNOR NF E66-611

Broach Pull Ends, AFNOR NF E66-612

Germany

Grinding Machine Tool Holder, DIN 705

Rasps, DIN 8343 to 8346

Light Metal Hammer, DIN 6491

United Kingdom

Gear Hobbing Machines for Turbines and Similar Drives, BS 1498-1948

624 Civil Engineering

Austria

Highway Bridge, Designing and General Rules, ORORM B4002, Part 1

Riveted and Bolted Steel Supporting Structures, ORORM B4300, Part 2

665.4/5 Mineral Oils, Fats and Waxes

Mexico

Transformer Oil, DGN 1.2-1948

Union of Soviet Socialist Republics

Petroleum Products, Octane Number Test by the Motor Method, GOST 511-46

Ammonia Soap, GOST 3853-47

Ammonia Soap, GOST 3854-47

Petroleum Products, Test for Sulfur Content by Bomb Method, GOST 3877-47

Lubricating- and Fuel-Oils, Method of Plotting a Curve of Wear of Motors and Mechanisms, GOST 3878-47

672 Articles of Iron and Steel

Germany

Single- and Double-Sling Chains, DIN 695

Roller Chains, Heavy, DIN 8150

Cable-Cutting Jack Knife, DIN 6479

Paper Shears, DIN 6488

Trowel Rasps, DIN 6481

Chains With Extending Catch Fingers, DIN 6681

Chains for General Use, DIN 766

Chains With Catch-Fingers, DIN 5682

Roller Chains, DIN 8181 Bl. 1

Mexico

Steel Desks, Specifications, DGN B21-1948

678 Rubber Industry

Austria

Round and Square Rubber Elastic Cord, ORORM C9401

Rubber Pads, ORORM C9402

Rubber Stoppers, ORORM C9406

France

Tires for Bicycles and Trailers, AFNOR NF T47-001

Tires for Motorcycles, AFNOR NF T47-002

Germany

Rubber Testing, DIN 53503

United Kingdom

Cotton Fabrics for Rubber Footwear, BS 1167-1948

77 Photography

Union of Soviet Socialist Republics

Reel Cores for Motion Picture Films, Dimensions, GOST 3917-47

Reels for Motion Picture Films, Dimensions, GOST 3918-47

Photographic Lenses, External Diameters of Mounts, GOST 3933-47

Photographic Apparatus, Connector for Shutter Release Cable, GOST 4190-48

Motion Picture Raw and Exposed Film Cans, GOST 4097-48

United Kingdom

Photographic Exposure Tables, BS 935-1948

Picture Sizes and Location of Rear Windows of Film Cameras, BS 1487-1948

Test-Films for 16MM Cinematograph Projectors, BS 1488-1948

35-MM Cinematograph Release Prints, BS 1492-1948

Photographic Safelight Screens and Housings, BS 1496-1948

Standards Council Meets To Thrash Out Problems

Asks Safety Committee to study need for expanded program; considers how to smooth procedures for approval of standards; hears committees report

THE Standards Council, meeting at the ASA offices on Thursday March 31, authorized the Safety Code Correlating Committee to determine what further industrial safety standards are needed as requested by the President's Conference on Industrial Safety. It also discussed procedures for approval of standards and heard correlating committees report progress.

All Member-Bodies of the American Standards Association are represented on the Standards Council. Through this representation they supervise and control the Association's technical work—they have the final word on initiation of new projects, appointment of sponsor organizations and membership committees, and on approval of standards. Although 23 Member-Bodies had representatives present, it was disappointing that others either had previous appointments or were not sufficiently aware of the importance of their interest in the national standardization program to insure representation.

As an innovation, several members of the Board of Directors attended, to become acquainted with the technical side of the Association's proceedings. The Directors' meeting on the Association's general policy, administration, and financial matters was held the following day.

Since most of the reports of the Council's committees had been circulated earlier, the meeting itself concentrated on discussions of policy and on action.

Industrial Safety To Be Studied

The most important action of the day was the vote directing the Safety Code Correlating Committee to study the need for safety standards in industry and to determine what additional standards might help in reducing the industrial accident toll.

Recommendations that the standards needed should be developed through the procedures of the American Standards Association were made by the government, industry, and labor representatives present at the President's Conference for Industrial Safety (see page 122).

The Standards Council also took action that may lead to clarification of one of the most fundamental principles of ASA procedure—what constitutes "substantial interest" in a standard.

How "Existing Standards" Become American Standards

Since the American Standards Association is the machinery through which organizations reach agreements on standards, it is of vital importance that the procedures which keep the machinery running be well designed and in good condition. For this reason the procedures are given frequent and careful study, with a standing Committee on Procedure continuously on the job.

Recently slowness in approval of Existing Standards has been under fire.

In many cases standards prepared by national associations or technical societies have been accepted by all groups concerned and are in general use. Such "Existing Standards" may be entitled to recognition as American Standard. An Existing Standards procedure makes this recognition possible through approval by the American Standards Association.

Believing that the Existing Standards procedure could be more effectively used and that national organizations should be encouraged to seek the status of American Standard, the Survey Committee of the Board of Directors recently recommended to the Council that the procedures could be simplified without loss of emphasis on the fundamental principles of ASA. These principles call for "a

consensus of those substantially concerned" with the scope and provisions of a standard. To determine whether this requirement has been satisfied, the rules governing ASA procedure require that certain material to be submitted by the Association which developed the standard must be considered. This substantiating material must show acceptance by those substantially concerned with the scope and provisions of the standard; the history of the standard; the method by which it was formulated; the extent of its use; and the relation of the standard to other projects in its field. If the material submitted does not give complete information on these questions, the American Standards Association is required to make the necessary investigation.

Simplification of Procedure Is Recommended

The Survey Committee's recommendation for simplification of this required procedure was studied by the Committee on Procedure. It decided that complaints of slowness in securing approvals stem either from those organizations which have not utilized ASA procedure to any material extent, or from those which feel that their prestige suffers when full compliance with ASA's procedure is required. Delays occur, the committee reported, only when the exhibit accompanying the submittal of a standard is incomplete and requires follow-up by both the ASA staff and the submitting body. It was the committee's unanimous belief that relaxing the requirements for approval of Existing Standards would impair ASA's integrity and the quality of American Standards.

The major difficulties of submittal and approval of Existing Standards stem from a lack of knowledge and failure to comply with the present requirements for demonstrating a

consensus, the committee declared. Lack of knowledge of the value derived from the American Standard designation may be partly responsible for the fact that many national associations have not submitted standards for approval as American Standard, in the committee's opinion. "It is clearly essential that a positive understanding be created that the ASA is a piece of machinery for securing national acceptance and use of standards, and that the standards it approves are American Standards, not American Standards Association standards," the committee declared.

The Committee on Procedure recommended to the Standards Council that the educational program on American Standards be intensified and that as soon as possible ASA procedures be publicized in every-day language.

Since there seemed to be no clear understanding as to what constitutes "substantial interest" in a standard the Council asked the Committee on Procedure to study this term and report its findings.

In line with their responsibility to the Member-Body representatives on the Standards Council, the Board of Review and the correlating committees in charge of standards in the various industrial fields reported their activities since the Annual Meeting in October 1943. The Board of Review has the responsibility for reviewing actions of correlating committees and approving standards on behalf of the Council as a means of speeding action. It reported approval of 76 American Standards. Action on these standards has been completed, on an average, within two weeks from the time a standard has been submitted to the Board.

Members of the Board of Review are now:

J. R. Townsend of the Bell Telephone Laboratories, Inc

R. G. Griswold of the Electric Advisers, Inc

A. S. Johnson, of the American Mutual Liability Insurance Co

E. B. Paxton, of General Electric Co

D. V. Stroop, of the American Petroleum Institute

T. E. Veltfort, of the Copper and Brass Research Institute

Most of the activities of the correlating committees have already been reported in STANDARDIZATION. (In addition to the "Status of Standards" reports in each issue, also see reports on the Electrical Standards Committee, p. 53, February; on the Safety Code Correlating Committee, p. 111, April; and reports on the Mining Standardization Correlating Commit-

tee, the Consumer Goods Committee, and the Building Code Correlating Committee election in this issue, pp 132, 135, below, and 133.) A more complete report of building code activities will appear in the June issue.

The organization of a general correlating committee to take responsibility for all technical work not under the jurisdiction of one of the industry correlating committees, is being considered by the Board of Examination, under previous instruction from the Council.

Choice of Titles Gives Trouble

The choice of titles for standards has given the Board of Examination trouble recently, it reported. Such titles as "Graphical Pipe Fittings, Valves, and Piping Symbols for Use

on Drawings" do not make sense, and in the opinion of the Board it is the responsibility of the sponsors to check on the titles of standards submitted by them. Otherwise, the correlating committee and the Standards Council should withhold approval until a title is corrected, it declared. The Board of Examination urged that this policy be followed in all cases.

The Electrical Standards Committee reported that a subcommittee had been appointed to study the new procedure proposed by the National Fire Protection Association, sponsor for the National Electrical Code, for handling revisions of the code. The report of this committee has gone to letter ballot of the ESC.

(For a report on the status of the work on international projects, see page 126.)

NRDGA To Sponsor Rayon Project

After reviewing the proposed project on standards for rayon fabrics—called "the most challenging subject ever presented to the ASA"—the Consumer Goods Committee voted at its meeting March 23 to give the National Retail Dry Goods Association the responsibility as sponsor. The new project has been entitled "Proposed American Standard Uniform Specifications, Test Methods, and Quality Standards for Rayon Textiles." The NRDGA was asked to propose a scope for the work as well as the committee membership, to be voted on by the Consumer Goods Committee at its next meeting. In voting on the NRDGA sponsorship, the Consumer Goods Committee also accepted the offer of the American

Viscose Corporation to turn over all the data collected during its 19 years experience with its Crown Tested Plan. As brought out during the discussion, the fact that this information is available will be a determining factor in making a rayon fabrics project successful. If work were undertaken at this time on any other fabric it would be doubtful whether anything could be accomplished, since it would take years to develop equivalent data, it was explained.

Because of the broad scope of the program and the importance of the American Viscose Corporation's experience, the committee asked that a representative of the Corporation serve as advisor at meetings in which the rayon project will be discussed.

Progress Report For Two Consumer Standards

Replies to a questionnaire on sizes of cooking utensils are being tabulated and will be sent to a drafting committee for use in preparing a proposed standard. The survey showed that although there are a wide variety of sizes of utensils in the stores, there are usually only a few different sizes of cooking utensils in housewives' kitchens. The principal importance of this project, the committee has found, is not necessarily to eliminate sizes or limit dimensions but to establish some uniformity in dimensions to help solve

problems of food packaging companies and users of package foods. Recipes prepared on a scientific basis by a company's dieticians are related to the sizes of kitchen utensils and therefore require more scientific equipment to assure good results, it was explained.

Proposed standards on electric water heaters, domestic electric flatirons, and on household electric ranges, are nearing completion under the sponsorship of the National Electrical Manufacturers Association, it was reported.

ASA STANDARDS ACTIVITIES

Status as of April 1, 1949

American Standards Approved Since February 28, 1949

Electrical Indicating Instruments, C39.1-1949 (Revision of C39.1-1938)

Sponsor: Electrical Standards Committee
Building Exits Code, A9.1-1949 (Revision of A9.1-1946)

Sponsor: National Fire Protection Association

Photographic Chemicals

Acetic Acid, Glacial, Z38.8.100-1949

Sulfuric Acid, Z38.8.101-1949

Citric Acid, Z38.8.102-1949

Boric Acid, Crystalline, Z38.8.103-1949

Hydrochloric Acid, Z38.8.104-1949

Acetic Acid, 28 Percent, Z38.8.106-1949

Hydroquinone, Z38.8.126-1949

Para-Hydroxyphenylglycin, Z38.8.128-1949

Sodium Thiosulfate, Anhydrous, Z38.8.250-1949

Sodium Thiosulfate, Crystalline, Z38.8.251-1949

Aluminum Potassium Sulfate, Crystalline, Z38.8.150-1949

Chromium Potassium Sulfate, Crystalline, Z38.8.151-1949

Formaldehyde Solution, Z38.8.152-1949

Paraformaldehyde, Z38.8.153-1949

Sodium Sulfate, Anhydrous, Z38.8.175-1949

Sodium Acetate, Anhydrous, Z38.8.176-1949

Potassium Dichromate, Z38.8.177-1949

Potassium Permanganate, Z38.8.178-1949

Potassium Ferrioxalate, Z38.8.179-1949

Copper Sulfate, Z38.8.180-1949

Potassium Persulfate, Z38.8.181-1949

Sodium Sulfide, Fused, Z38.8.182-1949

Potassium Bromide, Z38.8.200-1949

Sodium Bisulfite, Z38.8.276-1949

Sponsor: Optical Society of America

Standards Being Considered for Approval

By the Standards Council—

Buzz-Track Test Film for 35-Mm Motion Picture Sound Reproducers, Z22.68

Sponsor: Society of Motion Picture Engineers

Specifications for Copper Pipe, Standard Sizes (ASTM B 42-47; ASA H26.1)

Specifications for Red Brass Pipe, Standard Sizes (ASTM B 43-47; ASA H27.1)

Specifications for Bronze Castings in the Rough for Locomotive Wearing Parts (ASTM B 66-46; ASA H28.1)

Specifications for Car and Tender Journal Bearings, Lined (ASTM B 67-46; ASA H29.1)

Specifications for Copper-Silicon Alloy Wire for General Purposes (ASTM B 99-47; ASA H30.1)

Specifications for Rolled Copper-Alloy Bearings and Expansion Plates and Sheets for Bridge and Other Structural Uses (ASTM B 100-47; ASA H31.1)

Specifications for Brass Wire (ASTM B 134-48; ASA H32.1)

Specifications for Lead Red Brass (Hardware Bronze) Rods, Bars, and Shapes (ASTM B 140-47; ASA H33.1)

Specifications for Malleable Iron Castings (Revision of ASTM A 47-47; ASA G48.1-1948)

Zinc-Coated (Galvanized) Iron or Steel Sheets (Revision of ASTM A 93-46; ASA G8.2-1947)

Sponsor: American Society for Testing Materials

Graphical Heating, Ventilating, and Air-Conditioning Symbols for Use on Drawings, Z32.2.4

Graphical Welding Symbols and Instructions for Their Use, Z32.2.1

Graphical Pipe Fittings, Valves, and Piping Symbols for Use on Drawings, Z32.2.3

Graphical Plumbing Symbols for Use on Drawings, Z32.2.2

Sponsors: American Society of Mechanical Engineers; American Institute of Electrical Engineers

Practice for Photographic Processing Manipulation of Paper, Z38.8.6

X-Ray Sheet Film Hangers (Clip-Type), Z38.8.23

Photographic Exposure Computer, Z38.2.2 (Revision of Z38.2.2-1942)

Sponsor: Optical Society of America

By the Board of Review—

Brass or Bronze Screwed Fittings, 250 lb, B16.17

Ferrous Plugs, Bushings, and Locknuts With Pipe Threads, B16.14 (Revision of B16.14-1943)

Sponsors: American Society of Mechanical Engineers; Heating Piping and Air Conditioning National Association; Manufacturers Standardization Society of the Valve and Fittings Industry

Letter Symbols for Gear Engineering, B6.5 (Revision of B6.5-1943)

Sponsors: American Society of Mechanical Engineers; American Gear Manufacturers Association

Building Code Requirements for Signs and Outdoor Display Structures, A60.1

Sponsors: American Municipal Association; Outdoor Advertising Association of America

By the Board of Examination—

Letter Symbols for Structural Analysis, Z10.8

Test for Cone Penetration of Lubricating Grease, Z11

Test for Sulfated Residue, Lead, Iron and Copper in New and Used Substrating Oils, Z11

Chemical Analysis for Metals in Lubricating Oils, Z11

Test for Sediment in Fuel Oil by Extraction, Z11

Definition of Terms Relating to Petroleum, Z11.28 (Revision of Z11.24-1948)

Test for Knock Characteristics of Motor Fuels by the Motor Method, Z11.37 (Revision of Z11.37-1948)

Sponsor: American Society for Testing Materials

Audiometers for General Diagnostic Purposes, Z24.5

Sponsor: Acoustical Society of America

By the Consumer Goods Committee—

Determination of Small Amounts of Copper, Manganese and Nickel in Textiles, L14.49

Cotton Goods for Rubber and Pyroxylin Coating, L14.50

Air Permeability of Textile Fabrics, L14.51
Methods of Testing Wool Felt, L16.1 (Revision of L16.1-1945)

Sponsors: American Society for Testing Materials; American Association of Textile Chemists and Colorists

By the Mechanical Standards Committee—

Supplement No 1 to Steel Pipe Flanges and Flanged Fittings, B16e5 (Revision of B16e5-1939)

Sponsors: Heating, Piping and Air-Conditioning National Association; Manufacturers Standardization Society of the Valve and Fittings Industry; American Society of Mechanical Engineers

Standards Submitted to ASA for Approval

Compressed Gas Cylinder Valve Outlet and Inlet Connections, B57

Sponsor: Compressed Gas Association, Inc.
Method of Test for Accelerated Aging of Vulcanized Rubber by the Oxygen-Pressure Method, J4.1 (Revision of J4.1-1943)

Method of Test for Accelerated Aging of Vulcanized Rubber by the Oven Method, J5.1 (Revision of J5.1-1945)

Sponsor: American Society for Testing Materials

Horticultural Standards, Z60

Sponsor: American Association of Nurserymen

American Standards Being Considered for Reaffirmation

Dimensions for Photographic Dry Plates (Centimeter Sizes), Z38.1.31-1944

Sponsor: Optical Society of America

American Standards Withdrawn

Specifications for Gypsum Pottery Plaster (ASTM C 60-40; ASA A19.5-1940)

Specifications for Reduced Para Red (ASTM D 264-47; ASA K31.1-1947)

Specifications for Calcined Gypsum for Dental Plasters (ASTM C 72-40; ASA A65.1-1941)

Gas Safety Code, K2-1927

Withdrawal of American Standards Being Considered

Recommended Practice for the Installation, Maintenance, and Use of Piping and Fittings for City Gas, Z27-1933

Sponsor: National Fire Protection Association

Withdrawal of Projects Requested

Drain Tile, A6

Requested by: American Society for Testing Materials

News About Projects

Attachment Plugs and Receptacles, C73—

Sponsor: National Electrical Manufacturers Association

A sectional committee has been organized to review and bring up to date the American Standard C73-1941. Approval of the personnel has been requested. The chairman named is M. N. Russell of Pass & Seymour, Inc. and the secretary designated is Arthur L. Abbott of National Electrical Manufacturers Association. The committee will not undertake any standardization of attachment plugs and receptacles for general use but not those of industrial type or types for use in theatres.

Lamp Ballasts, C82—

Sponsor: Electrical Standards Committee.

The Sectional Committee has reviewed its scope and has submitted the following for final approval:

"Standards for mechanical and electrical interchangeability, and for the performance characteristics of ballasts and transformers for electric discharge lamps, except for sign lighting, and for the methods of test for such characteristics."

Drawings and Drafting Room Practice, Z14—

Sponsors: American Society of Electrical Engineers; American Society of Mechanical Engineers

A meeting of the Z14 Executive Committee was held recently in Cleveland, at which time J. M. Barnes and C. A. Ward, Jr. were announced as new members of the committee. Professor C. J. Vierck of Ohio State University was appointed to membership on the sectional committee as an additional representative of the American Society of Electrical Engineers, and H. L. Keller has also joined the sectional committee.

It was voted to establish the following subcommittees: 1, Size and Format; 2, Line Conventions, Lettering and Sectioning; 3, Projections; 4, Pictorial Presentation; 5, Dimensioning and Placing Tolerances on Drawings; 6, Screw Threads; 7, Gears, Splines, and Serrations; 8, Castings; 9, Forgings; 10, Metal Stampings; 11, Plastics; 12, Die Casting; 13, Springs—Round and Flat; 14, Structural Drafting; 15, Air Frames Standards; 16, Tool and Gage Drawing; 17, Notes.

Standards for Motion Pictures, Z22—

Sponsor: Society of Motion Picture Engineers

A revision of American Standard for 35-Millimeter Cutting and Perforating Negative Raw Stock, Z22.34-1944 has been completed by the sectional committee and is before the Board of Examination for approval. The revision covers a method of getting extremely accurate registration of more than two films in a number of steps in printing two or three color release prints. The proposal is to have combination positive and negative perforation.

Safety Color Code, Z53—

Sponsor: National Safety Council

The National Safety Council, sponsor, has designated Reuel C. Stratton, the Travelers Insurance Company, chairman of the new ASA sectional committee Z53 on Safety Color Code. Henry G. Lamb, American Standards Association, is secretary.

The scope of the committee includes defining the application of colors to specific purposes in connection with accident prevention, and recommending the colors to be used for such purposes as marking physical hazards and the location of safety equipment. The Code may include standard shapes for colored symbols.

The first organizational meeting of the committee was held April 13, when subcommittees were set up to study possible revisions of the existing color code.

Sound Recording, Z57—

Sponsors: The Institute of Radio Engineers; Society of Motion Picture Engineers

At a meeting of the sectional committee March 11, it was unanimously recommended that subcommittee 1 on disc recording consider both the Radio Manufacturers Association and the National Association of Broadcasters standards for 78 and 33 1/3 rpm; 10, 12, and 16-inch records, and submit those found suitable for approval as American Standards.

Subcommittee 2 on methods of measurement of flutter reported that it has in final form a proposed American Standard for the method of measuring flutter content of sound recorders and reproducers, and it was recommended that a letter ballot be prepared and submitted with this standard to ballot of the sectional committee.

It was also decided to draw up and circulate a proposed American Standard on the recommendations made regarding the speed and dimensions of unperforated magnetic materials made by subcommittee 3 on dimensional requirements for magnetic recording materials.

Building Exits Code Revised

Following extended study by the sectional committee (NFPA Committee on Safety to Life), revisions have been made in several sections of the Building Exits Code. The changes made are in Chapter 8, Moving Stairways (formerly Escalators); Chapter 26, Hotels (formerly Hotels and Apartment Houses). A new Chapter 28, Apartment Houses, has been added. The code, sponsored by the National Fire Protection Association, was approved March 18, 1949, and is now designated as A9.1-1949.

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BCCC Elects New Officers

At the recent meeting of the ASA Building Code Correlating Committee Theodore Irving Coe, technical secretary of the American Institute of Architects, Department of Education and Research, was elected chairman, and Morgan Strong, executive secretary of the Conference of Mayors and Other Municipal Officials of the State of New York, vice-chairman.

Mr. Coe succeeds George N. Thompson, assistant chief of the Division of Building Technology of the National Bureau of Standards, who was chairman of the BCCC since 1944, and has been a member of the Committee for 11 years. Mr. Thompson has served on committees in the building code field since 1933.

Mr. Coe has been actively associated with the work of many ASA committees, and with the work of other organizations in the construction field. He has served as a member of the BCCC for a number of years and brings to the Committee the experience of extensive architectural practice. He was formerly vice-chairman of the Committee.

Previous to joining the Conference in 1937, as assistant director in charge of the Municipal Training Institute, Mr. Strong was assistant to the city manager of Schenectady, N. Y. He was formerly city editor of the Schenectady Gazette and was also connected with the Knickerbocker Press, in Albany, N. Y.

Editorial Changes On Your Magazine

STANDARDIZATION announces the appointment of a new production editor, Miss Barbara A. Lamson, who joined our staff a few months ago. Miss Lamson comes to STANDARDIZATION from *Food Industries*, a McGraw-Hill publication, where she was assistant to the Managing Editor. Prior to that she was engineering assistant at the Bristol Company, Waterbury, Conn and the Brown Instrument Company in Philadelphia.

Miss Janet Meldon, formerly Assistant Editor of STANDARDIZATION, has left the American Standards Association to take a position as a Technical Editor at the Navy's Ordnance Test Station at Inyokern, California.

New Appointments to Standards Council

Changes in the membership of the ASA Standards Council have resulted in the appointment of the following new representatives:

Air Conditioning & Refrigerating Machinery Association—

George S. Jones, Jr., vice-president in charge of sales, Servel, Inc., succeeds D. W. Russell as representative from the Air Conditioning and Refrigerating Machinery Association, of which he is president. He is director of the National Federation of Sales Executives, and vice-chairman of Group Relations, National Association of Manufacturers.

Leonard C. Bastian, standardization engineer of the Air Conditioning and Refrigerating Machinery Association, has been named alternate for G. S. Jones.

William B. Henderson, executive vice-president of the association, is alternate for S. E. Lauer.

American Society of Mechanical Engineers —

H. B. Outley, consulting engineer with The Superheater Company and formerly

vice-president in charge of sales for this company, has been appointed as representative. He is a member of American Society of Mechanical Engineers, American Society for Testing Materials, and the American Society of Naval Engineers.

Association of Casualty and Surety Companies—

John V. Grimaldi, director of the Industrial Division of the Association of Casualty and Surety Companies, has been appointed for a three-year term as representative for this organization, succeeding J. H. Harvey.

Norman W. Andrews succeeds H. L. Jones as alternate representative for the American Casualty and Surety Association.

Heating, Piping and Air Conditioning Contractors National Association—

Leon L. Munier, alternate for Rowland Tompkins, has been associated since 1919 in heating, ventilating and air conditioning work in the firm of Wolff & Munier, Inc. He is a member of the American Society of Mechanical Engineers and the American Society of Heating and Ventilating Engineers.

Institute of Radio Engineers—

Laurence G. Cumming, technical secretary of The Institute of Radio Engineers, has been named alternate for A. B. Chamberlain, succeeding R. F. Guy.

Limited Price Variety Stores Association—

Pauline Steffen succeeds C. T. Nissen as alternate for P. H. Nystrom for this association.

National Aircraft Standards Committee—

Glen M. Aron, standards engineer of Northrop Aircraft, Inc., succeeds as alternate, C. E. Heywood, who has been appointed member of the Standards Council.

National Coal Association—

Earl R. Maize, elected for a three-year term as representative of the National Coal Association, is director of the Safety Division of the Association. He was formerly with the Safety Division, Bureau of Mines.

Harry Gandy, Jr., alternate for E. R. Maize, is the executive representative of the National Coal Association.



Left to right:

Leon L. Munier

George S. Jones, Jr.

Laurence G. Cumming

Earl R. Maize

John V. Grimaldi



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ASA Number	Title of Standard	Price
A40.7-1949	Plumbing Code	\$2.50
Minimum requirements for plumbing, with regard to design, installation, inspection, and performance, are here codified. Water supply, distribution, drainage, and venting systems are included. Dimensional standards, material specifications, and marine installations are not covered. (Sponsors: The American Public Health Association, The American Society of Mechanical Engineers)		
A55.1-1948	Administrative Requirements for Building Codes	0.50
This standard is one of a series of related standards presenting basic building code requirements. Organization of Building Department, enforcement of regulations, permits and certificates of occupancy, and Boards of Appeal, and other administrative requirements are covered. (Sponsors: American Municipal Association, Building Officials' Conference of America, Inc.)		
B5.17-1949	Markings for Grinding Wheels and Other Bonded Abrasives	0.30
B5.21-1949	Straight Cut-Off Blades for Lathes and Screw Machines	0.30
These are two more in a series of American Standards for Small Tools and Machine Tool Elements		
C37.6-1949	Schedules of Preferred Ratings for Power Circuit Breakers	0.35
Revised standard preferred ratings for indoor and outdoor oil and oilless, alternating-current power circuit breakers. (Sponsor: Electrical Standards Committee)		
C39.1-1949	Electrical Indicating Instruments	1.50
These specifications cover switchboard and panel instruments. Portable instruments are not covered, nor are all features or special performance requirements. (Sponsor: Electrical Standards Committee)		
K20.4-1948	Drop Shatter Test for Coke, Method of (ASTM D 141-48)	0.25
This method of drop shatter test is to determine the property of coke to withstand breakage. (Sponsor: American Society for Testing Materials)		
L14.1-1949	Accelerated Ageing of Textiles Dyed with Sulfur Colors, Method of Test for	0.25
L14.2-1949	Colorfastness of Textiles to Acids and to Alkalies, Method of Test for	0.25

ASA Number	Title of Standard	Price
L14.3-1949	Colorfastness of Wool Textiles to Carbonizing, Method of Test for	0.25
L14.4-1949	Colorfastness of Silk to Degumming, Method of Test for	0.25
L14.5-1949	Colorfastness of Textiles to Fulling, Method of Test for	0.25
L14.6-1949	Colorfastness of Wool Textiles to Mill Washing and Scouring, Method of Test for	0.25
L14.7-1949	Colorfastness of Silk to Peroxide Bleaching, Method of Test for	0.25
L14.8-1949	Colorfastness of Textiles to Sea Water, Method of Test for	0.25
L14.9-1949	Colorfastness of Textiles to Stoving, Method of Test for	0.25
L14.10-1949	Mercerization, Method of Test for ..	0.25
L14.11-1949	Evaluation of Wetting Agents, Method of Test for	0.25
This series of 11 standards, developed by AATCC, covers test methods for colorfastness and other properties of textiles. (Sponsors: American Association of Textile Chemists and Colorists, American Society for Testing Materials)		
Z20.2-1949	Grandstands, Tents and Other Places of Outdoor Assembly	0.25
This standard covers the design, construction, location, maintenance, and use of premises for outdoor assembly. (Sponsor: National Fire Protection Association)		
Z10.7	Proposed American Standard Letter Symbols for Aeronautics and Aerodynamics	0.50
This Proposed American Standard is not approved, but is published for trial and criticism.		
Z24.1	Proposed American Standard Acoustical Terminology	1.00
This Proposed American Standard is not approved, but is published for trial and criticism.		